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TRAIL & *Landscape*

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NATURAL HISTORY AND CONSERVATION

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BOTANICAL GARDEN



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The Ottawa Field ~ Naturalists' Club

— Founded 1879 —

President

W.K. (Bill) Gummer

Objectives of the Club: To promote the appreciation, preservation and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse information on these fields as widely as possible; to support and co-operate with organizations engaged in preserving, maintaining or restoring environments of high quality for living things.

Club Publications: THE CANADIAN FIELD-NATURALIST, a quarterly devoted to reporting research in all fields of natural history relevant to Canada; TRAIL & LANDSCAPE, providing articles on the natural history of the Ottawa Valley and on local Club activities five times a year.

Field Trips, Lectures and other natural history activities are arranged for local members; see "Coming Events" in this issue.

Membership Fees: Individual (yearly) \$17

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Welcome, New Members

Ottawa Area

Jacques Cayouette
Gillian Cooper & Don Price
Mark Gawn
Lois Jones
Margaret Lafrance
R.D. Loughton
Barbara Lawton

Victoria Martin
Don Moffatt & family
Rick & Rose Moody
George Patrick
Serge Rivard
Mick Scromeda & family
Austin Taverner
David Webber & family

Other Areas

J. McCracken
Vittoria, Ontario

Teresa & Jay Penniman
Stinson Beach, California

Eileen Evans,
Chairman,
Membership Committee.

Trail & Landscape Deadlines

Date of Issue	Deadline
March-April 1987	January 3
May-August	March 1
September-October	June 27
November-December	August 29
January-February 1988	October 24
March-April	January 2

Material intended for these issues must be in the Editor's hands before the deadlines for consideration. Long articles and articles that will be refereed must be submitted at least two months before the deadlines indicated.

Wildlife '87



Wildlife '87: Gaining Momentum is the theme for an exciting year officially declared to commemorate the 100th anniversary of the first wildlife sanctuary in North America. On June 8, 1887, the first Migratory Bird Sanctuary in the western hemisphere was established at Last Mountain Lake in Saskatchewan. Considering those times, when the majority of Canadians thought of wildlife as limitless and frequently as a nuisance, that action by the government was imaginative indeed.

The focus of Wildlife '87 is on conservation of wildlife and its habitat. Individuals and groups as well as business and government agencies are invited and urged to participate in ongoing conservation efforts and in the creation of new programs. Wildlife '87 is also a year to acknowledge current and past endeavours and to promote interaction among interested groups and individuals.

Wildlife '87 begins with cross-Canada Christmas Bird Counts in December 1986.

Everyone can participate by:

- setting aside a garden corner, hedgerow, pond, marsh, lake, or block of land for wildlife
- planting a tree or bush, or retaining a woodlot that provides food and shelter for wildlife
- participating in local events and creating conservation programs in local areas
- making tax-deductible donations of funds and/or land to local, provincial or national groups, and/or the National Steering Committee. (Please designate donations to Wildlife '87.)
- contributing written material to local media about Wildlife '87 projects.

For further information on Wildlife '87, contact your local committee or write to:

Secretary, Wildlife '87
National Steering Committee
Canadian Wildlife Service
17th Floor, Place Vincent Massey
Ottawa, Ontario K1A 0E7.
(telephone 953-1404) □

President's Message

I suppose it is normal for a president of such a large organization as our Club to look back over his year with heartfelt thanks (if he is lucky) that nothing really fell apart. If so, I am normal. Our machinery moves so smoothly because of our well-established committees, centred around a strong Council. As I've pointed out before, about 10% of our local members are involved in our committees - that's more than we see at many monthly meetings. The committees achieve, in effect, the Club's "PR", and it has been very good to see all the committees pulling their weight.

The Club has entered a new era with the acquisition of computer-printer equipment. After many years of managing through outside help to get such things as membership lists (with all the information on dates, addresses, publications, status, etc.), and mailing labels for *Trail & Landscape*, we have now had to take the step of purchasing our own equipment. This, of course, introduced new expenditures, and it also requires both people to operate it and a place where it is accessible for use. The equipment that we obtained is adequate for immediate needs and, indeed, has much additional capacity. For the time being, however, with an obviously interim working place in view, no further programming beyond the needs mentioned above is planned. The Club's thanks go to the group headed by Roger Taylor that made a choice of equipment and arranged its purchase. In particular, we owe a big debt of gratitude to Barbara Martin, who took over the equipment (as a result losing the functional aspects of her dining room for several months) and who, with especial help from Patricia Narraway, put the membership and label data on disk for immediate use.

Our thanks to Barbara for this work are more than tinged with regret, because she has since had to resign from the Council - but not from other Club duties, and we hope to see her back before long.

I referred to interim location of the computer. The ultimate is probably a Club office that will house computer-printer and word-processing equipment, all committee files, and thus all Club correspondence, and perhaps even a small meeting space. Committee records at present are in as many different spots as there are committees, and Club correspondence on many subjects is thus divided into isolated file boxes. The jump from where we are today to the luxury of an office is monstrous, but owning the computer-printer puts us squarely on the first step towards

that end. A few years ago, the Council gave thought to such space and what it might cost. Clearly, it cannot be done without considerable cost to the Club. How and when to prepare to meet such cost is something for our Club to accept now as a problem requiring a solution - no sudden deadline, we hope, but it won't resolve itself.

A few years ago, the Council asked all committees to prepare Terms of Reference, updating what existed or starting from scratch. It took time, but we now have a complete set of these documents, and they are being reviewed by another group to see if they are clear and sensible, if style differences are acceptable, and if there are obvious errors or omissions. One of the goals of this exercise is to improve interaction between committees if there is any overlap in interests and responsibilities. Before long, a set of the full Terms of Reference should be available for any member to see.

A year ago, *Trail & Landscape* carried a short note on the question of planting wildflower seeds that come from quite different parts of the country, perhaps from quite different plant associations or habitats. Since then, if you read *The Plant Press* and *Wildflower* (the two I have followed - no doubt there are others!), you will have seen a surge of interest in the subject, and a variety of comments. If you drove down new Highway 16 past the North Gower turnoff in late summer, you saw one of the examples that concern people. The bottom ends of many fields butting on the highway were solid purple from beautiful - no doubt about it - clumps of Purple Loosestrife (*Lythrum salicaria*). That is a relative newcomer, doing a good job of squeezing out and taking over.

Our best efforts to avoid mixing of plants from different areas are never going to be able to prevent some of this movement from occurring. About two-thirds of our "weeds" are aliens. In a small way, I see it in my own garden. This past summer, I have had Bottlebrush Grass (*Elymus hystrix*) growing happily in the back of my tiny greenhouse, and two species of *Scirpus* have appeared in my garden. These things grow on land I frequent near Burritt's Rapids, and as Dan Brunton has suggested, I probably brought them home on socks or pant legs. A healthy young plant of Stinging Nettle (*Urtica dioica*) also popped up in a pot of Amaryllis - who brought me that? I wonder how many botanical "firsts" are due to this movement.

The little of the discussions on the broad subject of wildflower planting that I have been able to follow shows that some useful positions are being taken - not necessarily new but perhaps new in their grouping:

- gardeners should accept responsibility for control over what they grow;

- we should all be aware of common plants whose presence on private land is a legal offence, and of others that are problems;
- plant wildflowers, but introduce them by seed or cutting, not by transplanting. So many transplants die, and sowing seed gives those species that want to grow a chance to do so;
- don't plant wildflower seeds that are not represented in the local flora;
- seed distributors should clearly identify species and sources represented in mixtures; wildflower naturalists and seed people could usefully get together;
- experience shows that creating or restoring natural vegetation is very difficult, and that efforts should go instead into preserving rare species in their own habitats.

A fascinating subject full of questions like "what's wrong with aliens?" and "what about survival of the fittest?" and I expect it will be around for a long time. Club members should be aware of the debate, and perhaps can help it along. How about a monthly meeting on the subject?

Another topic that has surfaced no doubt many times in Club history is that of Club land. In recent years this topic goes back to 1966, and you can follow discussions in *Trail & Landscape* (3(3): 62; 4(1): 4; 9(2): 58; 9(4): 106; 10(5): 106). The question arose anew in October 1983 with concern over the Stewartville Swamp near Arnprior. The Council appointed an *ad hoc* group to review the subject particularly from the viewpoint of aspects of owner liability and management. Because of membership changes, this group did not meet until October 1985, but it then set down some requirements. At time of writing, the full report has not gone through the Council in final form, but I can refer here to some of its important features. Clearly, precise rules about access, use, and management can only be drawn up when there is an actual decision on where, how much, how far away, what for and such queries. However, the group did produce some definitions of categories of land that it feels must be recognized. Starting with full agreement that The Ottawa Field-Naturalists' Club should own land, the group defines these categories based on purpose of ownership: (1) protection of something of value, (2) prevention of actions destructive to natural values, (3) study purposes, and (4) disposable asset.

The first two are considered acceptable reasons for Club purchase; land should not be purchased primarily for the third purpose, but land might come to the Club by bequest or gift with direction for such use. The fourth is separated because the Club conceivably could receive land that has no real value for natural purposes, and that should be disposed of (and not held for speculative purposes).

There are no plans for the Club to buy land now. The matter is mentioned here first to record the continuation of the debate, and second to point out that bequests to the Club could include land. We are aware that thought must be given to such aspects as taxes (included or not) and options to refuse, or dispose of, land of no value for Club purposes. In general, land for the Club should preferably (but not necessarily) be in the Ottawa District; should contain environmentally significant species or significant associations; should be of regional significance; and should stem the loss of wild habitat in the future.

This is really a brief review of the *ad hoc* group's report. How long now, before some actual move to obtain land is undertaken? What's that, an echo? Do I hear Anne Hanes' "Will we? Won't we?" (1976). Isn't it nice there's always something new to think about, even if it's old too?

Bill Gummer

Queen's Park: Friend or Foe of Ontario's Vanishing Wetlands?

Jane Topping

Less than 20% of southern Ontario's original wetlands remain today, and their time is fast running out. The ever-present pressures to drain, dredge or fill in order to convert wetlands to some other use are accelerating, especially pressures from agriculture and urban development.

Traditionally in Ontario, wetlands have been virtually ignored and their unique and diverse values given little consideration in both the planning process and in resolving resource user conflicts. While conceding that wetlands are valuable resources that must be protected, Ontario has yet to acknowledge formally their value and right to existence by affording them legal protection from destruction by competing land uses. This same concerned government has historically played, and continues to play, an important role in contributing to wetland loss through heavy subsidies for indiscriminate agricultural land drainage.

Globally, wetlands have been recognized as fragile and essential components of our ecosystem. The protection for future generations of their various forms - bog, marsh, fen and swamp - has become one of the major objectives of the World Conservation Strategy.

Here in southern Ontario, with less than one-quarter of our original wetlands left, progress towards wetland preservation has been minimal. Until recently, the Ontario Government, rather than recognizing them for their importance and protecting them, has appeared to regard wetlands as bastard children. While no ministry was prepared to accept responsibility to safeguard them, numerous ministries have impacted (as a rule negatively) on their future and, in some instances, their very survival.

Recently, the Ontario Ministry of Natural Resources has come forward on behalf of wetlands. This action is long overdue, and OMNR is the logical ministry to manage and protect them. However, one must ask if this is really possible at present. The answer is NO.

While it was encouraging to see OMNR release wetland guidelines in 1984 and embark on the present wetland inventory to "ensure that wetlands are managed to best meet both the present and the long term needs of the people of Ontario", the reality is that the guidelines are just guidelines, and in their present form are extremely weak. They cannot protect our remaining wetlands effectively.

The sincerity of purpose in, and the real value of, the Fall 1986 announcement by Queen's Park of an annual \$250,000 contribution towards the acquisition of valuable wetlands is made very questionable by Ontario's long standing commitment to provide much greater annual contributions to the Ontario Land Drainage Program. Agricultural land drainage has been identified as, and continues to present, the single greatest threat to what remains of Ontario's wetlands.

The question must now be raised, "Does the Ontario Government really have any intention of protecting the best of what remains of our wetlands, or is it only going through the motions while really just waiting out the clock?" This tactic would certainly solve the problem of wetlands management as well as all the potentially sensitive problems of overlapping ministerial mandates. It would also aid in perpetuating the tangle of boondoggle and expediency that would appear to have engulfed the Ontario Land Drainage Program.

No one questions "sensible" agricultural land drainage. However, the drainage program in its present form is not sensible. It cannot be used to justify paving or developing our best foodlands in Ontario. This program of indiscriminate drainage

is not in the best long-term interest of agriculture or the environment and cannot be expected to make Ontario food self-sufficient for the future.

No one questions the necessity of documenting base line data to support the decision-making process for resource management. Presumably, this is the intent of the wetland inventory. This being the case, why hasn't a moratorium on wetlands conversion been put into effect until the inventory is finished, the results evaluated, and a wetlands policy implemented? Unless, of course, the intent of the inventory is to stall and divert attention while giving the appearance of active participation to resolve the wetlands issue.

The province will be no closer to meaningful wetland protection without the adoption of a major change in attitude, along with equally important changes in the method by which Ontario undertakes to manage natural resources. Long overdue amendments of existing legislation are needed. One example is the Ontario Land Drainage Act 1975. This Act has tremendous potential to impact negatively on valuable wetlands.

If left unchecked, this program of indiscriminate drainage is capable of eradicating systematically what remains of our wetlands. It will turn many of our natural streams into open agricultural sewers. Indiscriminate drainage projects which are often both poorly designed and poorly constructed have tremendous potential to degrade or destroy the finite resource base of soil and water on which we all depend.

We require a change in resource management in order to ensure that our natural resources are managed on a holistic and long-term basis. As well, we need protective legislation specifically for wetlands. We also require increased public awareness of wetland values and their importance to both wildlife and society. This public awareness is essential. It must be developed at all levels in various sectors, including school children, the general public, local and municipal decision makers, and those user groups whose activities impact negatively on wetlands. It must also be done on a sustained basis, not a one-time effort. Positive incentive must be given to those individuals and groups who preserve valuable wetlands for the long-term and likewise stiff penalties handed to those who degrade or destroy valuable wetlands. Without all of these elements in concert, our remaining wetlands will be lost. Now is the time to get involved before it is too late to preserve the best of what we have left of this unique, wild, incredibly valuable, and rapidly vanishing part of Ontario's natural heritage. ▢

WANT TO JOIN IN THE CLUB'S CONSERVATION EFFORTS? The Conservation Committee is looking for new members and a secretary. Call Joyce Reddoch, 749-5363, if you are keen to help.

Save Those Seeds

J.W. (Jack) Holliday

Before the War (1939-1945), the children of Ottawa swam at the public beaches of Bathing Island (where Brewer Park now is), Brantwood Beach in Ottawa East, and, if one had 50 cents a year (not very often), Brighton Beach in Ottawa South. All of them were a long, hot, wearying hike from Lyon Street.

Going there wasn't so bad because we had a refreshing swim at trail's end, but the journey home after strenuous hours in the water was slow and tortuous. Usually we'd travel in packs of four to eight. The boys' pack would sometimes separate from the girls' and go investigating and exploring, especially on the homeward journey, when a diversion from the steady plodding would be welcomed.

On one such exploration, we came upon a garbage dump, somewhere downriver from Brantwood Beach. In those days, garbage consisted largely of coal ashes, tin cans, bottles and kitchen refuse. Most paper and wood went into the stove or furnace, and there were no plastics, with the exception of celluloid (which burned rapidly with black smoke and practically no ash). One never saw furniture or stoves or washing machines or bed springs in the dump. Who would throw out such valuables?

What impressed me about the dump was the tangle of melons, squash and pumpkins growing everywhere in the older parts. Most were still flowering in August, but there were already full-sized canteloupe. (Musk melons, we called them.)

We couldn't eat them, of course, being suspicious of what they grew upon, but we did throw some about to see them split open. Boys do like to smash things.

What all of the foregoing is about is the fact that we throw out all sorts of squash-pumpkin-melon seeds, and have done so for at least 50 years.

Some few years back, I saved some pumpkin seeds, intending to roast them, but never got around to the roasting part. Having the dry seeds available, I put some out in the bird feeder to see if the birds would be interested. Chickadees love them. Starlings ignore them. Sparrows try to eat the smaller melon seeds. Nuthatches vie with the chickadees to see which can make off with the most.

I have a small, clear plastic, half-diamond-shaped feeder which fastens on the window glass with a rubber suction cup.

Each day, from the front verandah, I lean out and drop a small handful of dried seeds into the feeder. Before long, a chickadee appears and, choosing a seed, flies to a nearby tree, where, holding it firmly against a branch with its foot, it pecks the seed open and eats the contents. One can stand inside the house and watch the birds, unafraid, come to the feeder. Nuthatches come in winter only, but the chickadees come year round.

The seeds are easy to prepare; just spread them on a newspaper, then let them dry for a week. They lift easily from the paper when dry.

Ritchies is one source for the plastic feeders, but no doubt they are available from other outlets also.

Save those squash, pumpkins and melon seeds and be rewarded by frequent visits from your friendly neighbourhood chickadees.

Beware of squirrels; they will soon eat every seed if given the chance. ▢

More Garbage

Barbara Martin

What exactly is garbage? To most of us it is anything we don't want. However, just because I don't want something doesn't mean someone else doesn't want it. "One man's poison is another man's meat", to distort a well-known saying. I shall return to this point later.

The Regional Municipality of Ottawa-Carleton is in the midst of producing a plan to deal with the next 25 year's-worth of garbage. Both landfill and incinerators have been proposed, but as soon as a site is pin-pointed, the local residents object. Understandably, nobody wants a pile of garbage or a smelly incinerator in his own back yard. But why is garbage such a problem now? Why do we have so much of it? Well, there are several reasons:

- 1) There are more people today than ever before - hence more producers of waste and less space to dispose of it.
- 2) We live in a consumer society which encourages buying of disposable goods (so the producers of said goods can sell more of them) and which over-packages goods for the short-term convenience of buyers.

- 3) Our advanced technology has introduced many products, such as plastics, that do not occur naturally and hence have no natural agents to break them down.

Let's look at "garbage" in the natural environment. All living things take in nutrients from the environment and produce certain waste products as a result of their metabolism. They also eventually die, providing yet more waste material. A great many organisms have adapted to utilize these waste products. For example, one of the waste products of green plants is oxygen (an end product of photosynthesis) which we, as human beings, are happy to consume. An extensive decomposer system has evolved to break down naturally occurring organic waste. This system includes everything from vertebrate scavengers (for example, vultures, raccoons, skunks) to invertebrates (for example, insects, millipedes, earthworms) down to the microbial level of fungi and bacteria. This system works well until you overload it. This brings me back to the point that there are more people now than ever before and all producing more garbage.

Here are a few other points about the natural decomposition process. It is temperature dependent, so that in our part of the world, there can be very little decomposition during the winter. Aerobic decomposition (that is, with oxygen) is much faster than anaerobic (without oxygen). So, burying garbage reduces its access to air and thereby prolongs the time it takes to break down. Toxic chemicals (everything from old cans of insecticides to paint thinners) kill the organisms that decompose organic waste. The mixing of toxic and non-toxic waste inhibits the natural decomposition process. Finally, non-toxic man-made products, such as plastics, are relatively new to nature and have no natural agents to break them down. Possibly some organism will evolve to break down these new products, but our rapidly-paced technology is turning out new products faster than the natural environment can respond.

So ... what's to be done? Well, first of all we can reduce the amount of garbage we produce. Here are some general suggestions:

- Don't acquire things you don't really want. This may sound silly, but many people acquire items just because they are cheap or free.
- Avoid buying overpackaged items, such as those impossible-to-open blister-packs. Buy food in bulk and bring your own containers. (You'll save money too by not paying for the packaging.)
- Avoid buying disposable goods (for example, styrofoam cups, razors, diapers and facial tissues).

- Use products made from renewable and biodegradable resources (for example, paper, rubber and cotton, as opposed to synthetics such as plastic and nylon).
- If you no longer want something, find someone else who does. If you want a financial return, sell the item - put an ad in the paper or have a garage sale. Maybe your relatives or friends could use it. Other outlets are listed below.
- If you have a backyard, compost your kitchen and garden waste. Setting up a compost pile can be as simple as digging a hole in the backyard. You'll be amazed at how fast it disappears. Your garden will love the result and you'll save on fertilizers.

Here are some specific suggestions for goods you want to dispose of:

1) CAR PARTS AND THE LIKE

- local scrap dealers

2) WHITE GOODS (appliances such as stoves and washing machines)

- The Recycle Store - Lincoln Fields Shopping Centre (829-1324)
- Neighbourhood Services - 987 Wellington St. (728-3737)
- Salvation Army - 171 George St. (232-1538)
- St. Vincent de Paul Society - 8 Beechwood Ave, Vanier (741-4125)
- local churches

NOTE: Most of these organizations will pick up at your door.

3) CLOTHES

- Neighbourhood Services - 987 Wellington St. (728-3737)
- Salvation Army - 171 George St. (232-1538)
- St. Vincent de Paul Society - 8 Beechwood Ave., Vanier (741-4125)
- local churches
- If the clothes are no longer wearable, use them as rags and save on paper towels.

4) GROCERY BAGS - paper and plastic

- Grocery stores, particularly the small health-food types, are often happy to receive your excess grocery bags.

5) EGG CARTONS

- The small grocery stores which sell bulk foods are often happy to take egg cartons.
- Kanata periodically includes an egg carton drop-off depot along with the tin at the Dunrobin Community Centre.

6) NEWSPAPERS - if you live in Rockcliffe or Kanata

Rockcliffe - The Boy Scouts run a pick-up twice a year.

Kanata - There is a weekly curbside pick-up of newspapers on the same day as the regular garbage pick-up.

7) GLASS

Ottawa has four drop-off depots, unmanned and open 24 hours:

- Industrial Ave. at St. Laurent Blvd.
- Second Ave. at Bank St. behind the IGA
- Heatherington Rd. at Walkley Rd.
- Woodward Dr. just west of Clyde Ave.

Kanata - there is a monthly curbside pick-up

8) TIN - There are several drop-off depots:

Ottawa - the same depots as for glass

Kanata - the Dunrobin Community Centre

9) WASTE OIL - Ottawa has six drop-off depots:

- Percy St. at Catherine St.
- Windsor Ave. off Riverdale Ave.
- Industrial Ave. at St. Laurent Blvd.
- Second Ave. at Bank St. behind the IGA
- Heatherington Rd. at Walkley Rd.
- Woodward Dr. just west of Clyde Ave.

Let's look at the results of practising some recycling. If you take all your glass to the drop-off depots, you reduce your garbage by 7%, take the time too and you're up to 13%, give old clothes to the Neighbourhood Services, you're up to 16%, buy food in bulk, up to 30%, compost all your kitchen and garden waste, you're up to a grand total of 67%. You have reduced your garbage by two-thirds! If everyone in the Region could do that, we taxpayers would save \$6,700,000 a year on the collection and disposal of our garbage. In addition, acres of greenbelt and farmland would be saved from landfill. Every little bit counts and you're the one who profits.

For more information on what you can do to be a more conservation-minded householder, contact Pollution Probe (235-9266).

□

An Unusual Winter Record of the Hairy-tailed Mole

Daniel F. Brunton
2704 Marie Street
Ottawa, Ontario K2B 7E4

The mole is a small, inconspicuous mammal that spends most of its life underground, tunnelling at or below the turf line in search of worms and other invertebrates. It is a superb tunneling "machine". With a long, tapered head and chunky, neckless, muscular body, the mole is very efficiently pulled along by its powerful, heavily-clawed front feet. Its extraordinarily short legs help to reduce the effort of digging and encourage the remarkably rapid rate of which this mammal can dig. It seldom ventures up into the world of light, and its eyesight is very poor. The deeply embedded eyes appear only as tiny dots in its beautifully plush fur.

This deep-set character also helps to protect the eyes from damage as the mole moves through the earth. Only on summer nights does it regularly emerge to search the forest floor. Even then, it relies more on sensitive "feelers" on its feet and nose than on its eyesight to navigate and to find food. And it *must* be good at finding prey, for moles are known to consume more than their body weight in food in a 24-hour period (Peterson 1966).

There are three species of moles known in Ontario. The Eastern Mole (*Scalopus aquaticus*) is quite rare in the province and is found only in the Point Pelee area of southwestern Ontario (Peterson 1966). Another, the Star-nosed Mole (*Condylura cristata*), is found across much of Ontario in low, wet shrubbery or meadows and is fairly common throughout the Ottawa District (Rand 1945, Banfield 1974). The third, the Hairy-tailed (or Brewer's) Mole (*Parascalops breweri*), is an uncommon species of drier, sandy soils and is at the northern limit of its range in the Ottawa District (Rand 1945, Peterson 1966, van Zyll de Jong 1983). It has been found here at Kingsmere and at Meech Lake in the Gatineau Park and from an 1888 collection by E. Brown "between Stead's [sic] Mills and Britannia" (Rand 1945). The latter specimen would have been taken from the vicinity of the present-day intersection of Woodroffe Avenue and Richmond Road (cf. Walker and Walker 1968).

Although all moles remain active year-round, at snowy latitudes they retreat to deeper tunnels below the frost-line in winter (Banfield 1974). One can imagine, then, how unexpected

was our discovery of a Hairy-tailed Mole at Lac Johnson near Wakefield on January 24, 1986.

Karen McIntosh and I discovered the mole while we were snowshoeing near the south end of the lake, in search of the bog that was reported there in early naturalists' literature. The animal lying on the surface of the snow, in apparently good condition (other than the obvious difficulty of being dead!) and showing no marks or damage. No tunnels were evident in the snow and no recent snow had fallen to obscure them - suggesting that the animal had been travelling across the top of the crusted snow surface (see the photograph below). What had happened to it?



Hairy-tailed Mole found at Lac Johnson near Wakefield, Quebec, on January 24, 1986. Photograph by the author.

We can only speculate, of course, but it seems most likely that this unfortunate mole had met its end because of an unusual mid-winter thaw. The Ottawa area had experienced exceptionally warm temperatures in early to mid January (as all of us who were impatiently waiting to get skating on the Rideau Canal will recall). A heavy melt of surface snow occurred at this time, flooding low-lying areas and filling many frozen depressions in

the land. The soil at the Lac Johnson site is quite shallowly mantled over impermeable granitic bedrock, and so the mole's tunnels may well have been, by necessity, closer to the surface (and the runoff) than would otherwise have been the case. If this melt-water seeped down into the tunnel system, the mole would have no alternative but to come out and initiate a desperate search for drier ground in which to shelter and feed. Such a search would be all but futile in mid-winter conditions, even during a period of atmospheric thawing; the ground would require a great deal more heating before it too would soften up. The thick, warm fur of the mole would probably protect its body for some time, but its fleshy feet and nose surely could not withstand prolonged winter cold. As if all of this were not bad enough, there would be no food available, and that may have been the most dangerous element of all for an animal that consumes in excess of its weight in food each day. In all likelihood, the final straw would have been added when the thaw ended about January 22nd and typical sub-zero January temperatures returned. The mole's fate was sealed. A curious end for a largely subterranean creature that is usually nowhere to be seen in winter time.

The Lac Johnson site, at 45°43'N, 75°59'W, is 20 km north of the previously-recorded northern limit for Hairy-tailed Mole in western Quebec. Although this mammal is still found at Meech Lake in Gatineau Park, no other Ottawa records have come to light since the 1940s (David Campbell, National Museum of Natural Sciences, personal communication). Our Lac Johnson specimen has been donated to the National Museum of Natural Sciences to join the few other Ottawa District species of this uncommon and interesting mammal in their collection.

Literature Cited

- Banfield, A.W.F. 1974. The mammals of Canada. University of Toronto Press, Toronto.
- Peterson, R.L. 1966. The mammals of eastern Canada. Oxford University Press, Toronto.
- Rand, A.L. 1945. Mammals of the Ottawa District. Canadian Field-Naturalist 59: 111-132.
- van Zyll de Jong, C.G. 1983. Handbook of Canadian mammals. 1. Marsupials and Insectivores. National Museum of Natural Sciences, Ottawa. 210 pp.
- Walker, H. and O. Walker. 1968. Carleton saga. Runge Press, Ottawa. ▀

Notes on Three Ottawa District Orchids

Joyce M. Reddoch and Allan H. Reddoch

When people talk about orchids these days, they almost always use the phrase "rare orchids". And, indeed, of the 43 species of Ottawa District* orchids, many are just that.

In this note, we report on the status of three orchids of special interest in the District. One is so rare that it appears to be on the verge of extinction here, and the second is only slightly better off. The third species is surviving largely due to the happy coincidence that much of the largest colony happens to be in the Stony Swamp Conservation Area. In addition to status, we describe, for the record, some colonies of these three species that are close to disappearing or are no longer extant and for which no herbarium collections have been made.

Small Round-leafed Orchid (*Amerorchis rotundifolia*)

This orchid is distributed mainly in Canada's boreal regions from coast to coast (Catling 1983). The Ottawa District is right on the southern limit of its distribution, which, in southern Ontario, extends from Lake Huron to the Ottawa River (Whiting and Catling 1986).

In all of southern Ontario, fewer than 20 collections have been recorded (*ibid.*), and of these collections, only seven were made after 1950. Even worse, no plants could be found in three of these localities in recent years (R.E. Whiting, personal communication 1986; personal observation).

Eastern Ontario populations are part of the same pattern. In the Upper Ottawa Valley, there have been three records for Renfrew County. Mary Moore discovered a colony of 9 or 10 plants in a *Sphagnum*-rich swamp at Deep River in 1954. The next spring, she returned to find bulldozers levelling and filling in the swamp for a new road (Beach Avenue, M.I. Moore, personal communication 1986). Further south in the county, Hue and Elva MacKenzie found a colony of 62 plants in a cedar swamp near Micksburg in 1968 (NOLS 1968[#]). Last summer, we searched in vain in the now badly-flooded swamp for signs of the orchid.

* The Ottawa District is the area within 50 km of the Peace Tower.

[#] NOLS = the records of the Native Orchid Location Survey of The Ottawa Field-Naturalists' Club (1966 to present). A copy of these records has been deposited in the library of the National Herbarium of Canada (CAN) (Reddoch 1977).

However, to balance the bad news, the large populations in the fen and swamp habitats in the Westmeath Bog that Hue and Elva discovered in 1968 (NOLS 1968) are still thriving. And in Frontenac County, the colonies described by Whiting and Catling (1986) continue to do well.

In the Ottawa District, the Small Round-leafed Orchid is close to extinction. Herbarium collections (at CAN, DAO, MTMG, and US) have been made from only two localities in the District, Dow's Swamp (between 1878 and 1882) and "the cedar swamp east of Stittsville" (in 1903). Dow's Swamp was filled in some years ago (Reddoch 1978), and the Stittsville swamp has now been drained and is part of the Amberwood subdivision.

The only recent record of this species in the District has come from a calcareous peatland complex near Poltimore (Reddoch 1979). From 1966 to 1970, local naturalists observed and photographed a colony of about a dozen plants in the White Cedar-Balsam Fir swamp at the south edge of the open sedge fen. In 1971, about a dozen plants were noted in the open fen about ten metres from the first colony. In both situations, the plants grew in moss or in the peat at the bottom of troughs in the peatland floor (J.D. Lafontaine, personal communication 1976). No further sightings were made until 1981 when Ross Layberry discovered one flowering plant and several seedlings, again just inside the swamp edge (Figures 1 and 2). There were two flowering plants in 1982.



Figures 1 and 2. *Small Round-leafed Orchid* growing in *Sphagnum russowii* (Poltimore, Wakefield Twp., Gatineau Co., Quebec), June 21, 1981. Plant height 19.5 cm.

During the winters of 1983, 1984 and 1985, the lush swamp was logged, and it is difficult to remember exactly where the few plants of former years grew. We have no further reports of any plants of Small Round-leafed Orchid there since 1982.

Large Purple Fringed-orchid (*Platanthera grandiflora*)

The Large Purple Fringed-orchid is a plant of the Appalachian - Atlantic Coast region that reaches Ontario only in the Ottawa District (Stoutamire 1974). It has been included in the *Atlas of the Rare Vascular Plants of Ontario* (Catling et al. 1982), and has been listed by Whiting and Catling (1986) as endangered in the province, that is, in danger of extirpation.

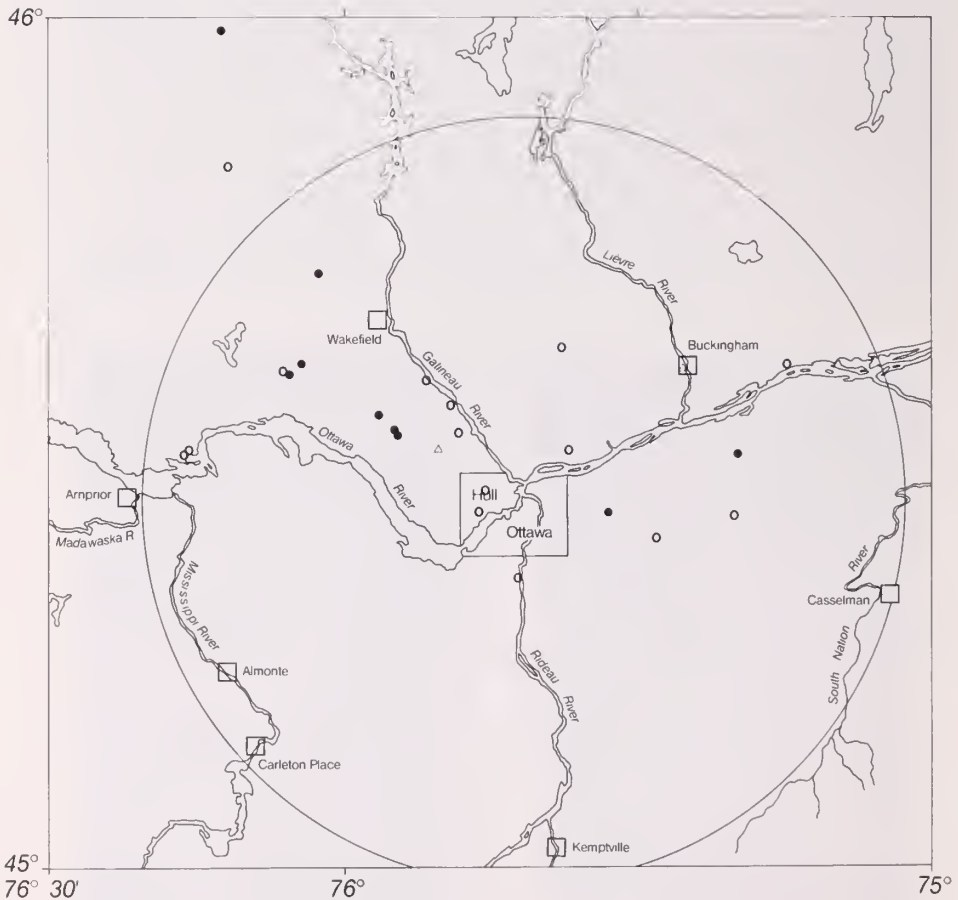


Figure 3. Large Purple Fringed-orchid in the Ottawa District. Closed circles represent data from the Native Orchid Location Survey, and O's represent additional (usually older) herbarium records (from CAN, CCO, DAO, MT and TRT).



Figures 4 and 5. *Large Purple Fringed-orchid* (4 km northeast of French Hill, Cumberland Twp., Ottawa-Carleton (R.M.), Ontario, July 6, 1979. Plant height 61 cm.

The picture is slightly more promising on the Quebec side of the District, where a few fairly recent sightings have been made (Reddoch 1976, Figure 3). (By the way, the Champlain Lookout colony described in 1976 had four plants of *Large Purple Fringed-orchid* in 1986 and none of the closely-related *Small Purple Fringed-orchid* (*P. psycodes*).)

Since 1976, only three new localities have been discovered in the District despite intensive searching. Ross Layberry deliberately sought out the open, moist, sedgy patches favoured by this orchid in his quest for some rare skippers. He discovered many colonies of the *Small Purple Fringed-orchid*, but only one new stand of the *Large Purple Fringed-orchid*, two plants on a sandy roadside in Masham Township, Quebec, in July of 1982. A year later, Dan Brunton located three plants in a Red Maple stand at the north edge of the Mer Bleue Bog in the City of Gloucester (Brunton, personal communication 1983, Brunton 1984).

We found the third new colony east of Ottawa in Cumberland Township in 1978. Ross came across the same colony independently two years later, and together we tried to keep an eye on its progress. Never more than a dozen plants, this group of scattered individuals grew on moist sand in the shallow roadside ditch and into the edge of the adjacent Red Maple woods (Figures

4 and 5). Every year the roadsides were sprayed heavily with herbicide and plants near the road were lost. In 1985, one flowering plant at the edge of the woods escaped the spraying, but two others closer to the road were killed while in bud. Last year, none of us could find any plants.

Just across the road, we had located 33 plants of the Small Purple Fringed-orchid in 1976. Two years later, all the plants had disappeared, and we have not seen any sign of them since.

Case's Ladies'-tresses (*Spiranthes casei* var. *casei*)

Case's Ladies'-tresses was distinguished from the more familiar and more common Nodding Ladies'-tresses (*S. cernua*) in 1974 (Catling and Cruise 1974). Its range is mainly in eastern Canada, especially in Ontario (Catling 1983). In the Ottawa District, the species is essentially localized in one small area, the Stony Swamp Conservation Area in the western Greenbelt (Figure 6).

On the Quebec side, the earliest collection for the area was made in 1947 from just outside the District northeast of Lac La Blanche. We found another colony close by in 1974 (Reddoch and Reddoch 1974). Since then, three localities have been discovered in Gatineau Park: two collections from the sandy fields above Lac Philippe and our sight record at Moorside (NOLS 1980). The Moorside plants grew in sand in an area of sparse, mowed grass around Precambrian rock outcrops.

Shortly after our first article appeared, Paul Catling drew our attention to a 1972 collection made by Clarie and Enid Frankton near the Jack Pine Trail in Stony Swamp. Following this lead, we and the Franktons discovered many additional stands in Stony Swamp and adjacent Bridlewood during the next six years. Unfortunately, the Bridlewood plants are about to be wiped out by the expanding subdivisions that are advancing right up to the southwest boundaries of the Stony Swamp Conservation Area.

As we continued to explore the Stony Swamp area, we wondered why this species was confined to this particular part of the countryside. The plants were growing in old fields dominated by Poverty Grass (*Danthonia spicata*) in dryish sand thinly covering the often exposed sandstone bedrock of the Nepean and March formations. Old fields are common enough in the District, but these particular geological formations are not. We decided to look for Case's Ladies'-tresses elsewhere in the District where the sandstone occurred, and were pleased to get two additional colonies to the northwest of Stony Swamp.

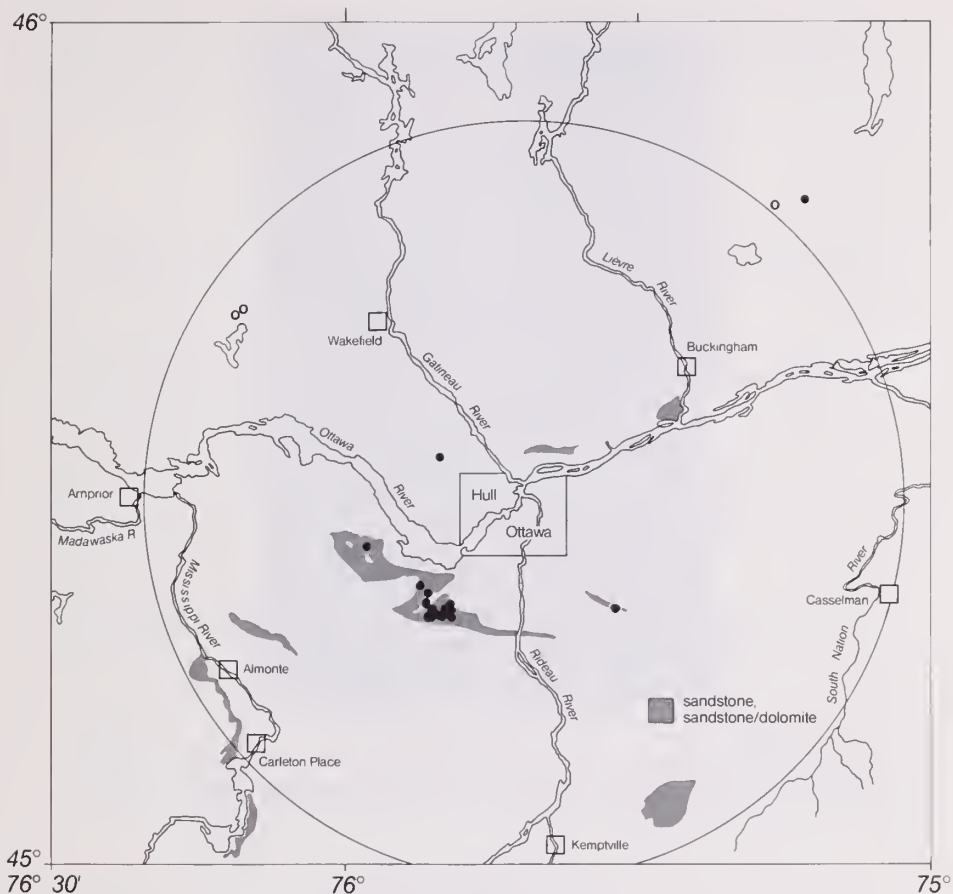


Figure 6. Case's Ladies-tresses in the Ottawa District. The symbols are the same ones used in Figure 3. (Herbarium collections are at CAN and DAO.) Shaded areas represent areas of sandstone bedrock (Bélanger and Harrison 1980).

Our greatest satisfaction came in 1978 when we found three flowering plants east of the Rideau River on the small sliver of sandstone along the Gloucester Fault in the former South Gloucester Conservation Area (Reddoch 1974, Dugal 1978). There were also 27 flowering plants of Nodding Ladies-tresses. We took one quick photograph (Figure 7) and planned to return in another year to search for more plants, but by the time we got back there in 1985, bulldozers had scoured the whole area clear as part of the operations of the adjacent quarry.



Figure 7. Case's Ladies-tresses (3.3 km northeast of South Gloucester, City of Gloucester, Ottawa-Carleton (R.M.), Ontario), Sept. 9, 1978.

* * *

As you can see, most of this account has been about orchid colonies being endangered or destroyed by human activities - logging, herbicide spraying, building and quarrying. The Small Round-leafed Orchid requires untouched calcareous fens and associated swamps to survive. But the other two species have been able to colonize areas cleared by humans under certain circumstances. Wide, moist, sandy roadsides could offer habitat for the Large Purple Fringed-orchid (if they were maintained by spring cutting rather than by herbicides), and the old fields of Stony Swamp are currently providing growing space for several hundred plants of Case's Ladies-tresses.

Acknowledgements

Many thanks to those people cited in the text for sharing their observations with us. In addition, we thank Mary Moore for sending a full-size xerographic copy of her 1954 *Amerorchis rotundifolia* collection to DAO and to us, Harry Thomson for lending us his slides of *A. rotundifolia* from the Poltimore

site, Em Whiting for providing data on southern Ontario *A. rotundifolia* collections, Paul Catling for lending prepublication copies of Ontario distribution maps, and Bob Ireland for identifying associated mosses.

Literature Cited

- Bélanger, J.R. and J.E. Harrison. 1980. Regional geoscience information: Ottawa-Hull. Paper 77-11. Geological Survey of Canada. Figures 1 and 2.
- Brunton, D.F. 1984. The vegetation and flora of the Mer Bleue Conservation Area, National Capital Commission Greenbelt, Gloucester, Ontario. Conservation Studies 22, National Capital Commission, Ottawa. 206 pp.
- Catling, P.M. and J.E. Cruise. 1974. *Spiranthes casei*, a new species from northeastern North America. *Rhodora* 76: 526-536.
- Catling, P.M. 1983. Terrestrial orchids in Canada. in North American terrestrial orchids. Edited by E.H. Plaxton. Michigan Orchid Society, Livonia, Michigan. 143 pp.
- Catling, P.M., R.E. Whiting, D.J. White, J.M. Reddoch and A.H. Reddoch. 1982. *Platanthera grandiflora* (Bigel.) Lindl. in Atlas of rare vascular plants of Ontario. Part 1. Edited by G.W. Argus and D.J. White. National Museum of Natural Sciences, Ottawa.
- Dugal, A. 1978. The South Gloucester Conservation Area revisited. *Trail & Landscape* 12(2): 47-53.
- Reddoch, A. and J. Reddoch. 1974. A "new" ladies'-tresses orchid: *Spiranthes intermedia*. *Trail & Landscape* 8(5): 135-137. [*Spiranthes intermedia* was an incorrectly applied name for *Spiranthes casei*.]
- Reddoch, J. 1974. Explorer's corner ... South Gloucester. *Trail & Landscape* 8(3): 71-73.
- Reddoch, J. 1976. Large Purple Fringed-Orchid: a new-old species. *Trail & Landscape* 10(5): 130-135.
- Reddoch, J. 1977. Native Orchid Location Survey. *Trail & Landscape* 11(2): 48-52.
- Reddoch, J. 1978. Dow's Swamp. *Trail & Landscape* 12(5): 132-141.
- Reddoch, J. 1979. Calcareous fens in the Ottawa District. *Trail & Landscape* 13(1): 16-27. [*Amerorchis rotundifolia*

and *Arethusa bulbosa* were inadvertently omitted from the plant list.]

Stoutamire, W.P. 1974. Relationships of the Purple-fringed Orchids *Platanthera psycodes* and *P. grandiflora*. *Brittonia* 26: 42-58.

Whiting, R.E. and P.M. Catling. 1986. Orchids of Ontario. The CanaColl Foundation, Ottawa. 169 pp. ■

More on the Bladdernut Shrub

Stephen J. Darbyshire

A September trip to the Petrie Islands, downriver from Ottawa, has revealed a second stand of Bladdernut (*Staphylea trifolia*) along the Ottawa River. The Petrie Islands, like Kettle Island and Upper and Lower Duck Islands, are large, alluvial sand deposits. Also like the other islands, they are composed of a series of low, sandy, wooded ridges interspaced by marshy backwaters and channels. At the east end of the Petrie Islands is a large sand quarry. Sand is dredged from the river-bed and washed and stored on the outer island. Apart from the quarry, a few cottages and those terrible off-road vehicles, there is little human activity on the islands in summer.

This colony is undoubtedly the largest now known in the Ottawa District. It is about 15 m across with many shrubs, as well as a few outlying individuals close by. On the north-central shore, the colony is subjected to annual flooding, as are other colonies in the District.

There were few fruits visible when observed on September 26, 1986, but further visits will be required to determine whether it was a poor season in 1986 or whether the colony has a low fertility. In a previous article in *Trail & Landscape* (Darbyshire *et al.* 1984), the authors discuss the dispersal of Bladdernut fruits. They are described as being persistent on the shrub over winter, falling in the spring and dispersing with the spring flood waters. Those statements were based on late season observations (February and March) when certain features and events were obscured by snow or time.

In 1984 and 1985, further observations showed that the vast majority of fruits do not persist over winter, but fall with the leaves or shortly after. Bladders and leaves litter the ground

around shrubs in the fall, but there are always a few fruits still clinging to the branches. Bladders are picked up from the ground by the rising spring flood and may be carried great distances.

These bladders are quite remarkable adaptations to dispersal by water. Two bladders collected (on the ground, December 1985) and two seeds from the Jock River plant (Illman and Dugal 1980) were placed in a jar of water and left undisturbed. The seeds by themselves had both sunk after two weeks. The bladders, which contained several seeds each, remained afloat for more than seven months (until July 1986). Although the walls of the bladders became moist after a short while, the entrapped air provided enough buoyancy to keep the bladders on top of the water for about six months. The number of mature seeds in the bladders will determine how high the bladders will float.

With the bladders floating on top of the surface, they are well-exposed to the wind. The three-sided shape means that no matter which way the bladder lands, a large foil is presented to the wind. Wind action on the bladders would allow ready transport against the water currents, although waterfalls and rapids would certainly present formidable barriers for this type of dispersal.



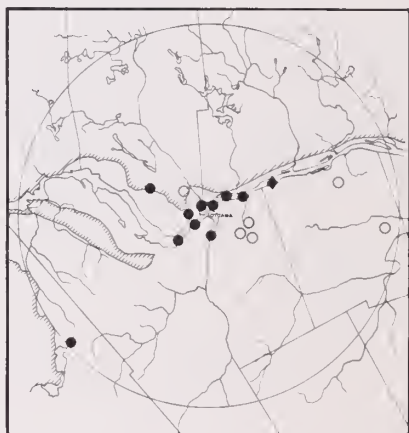
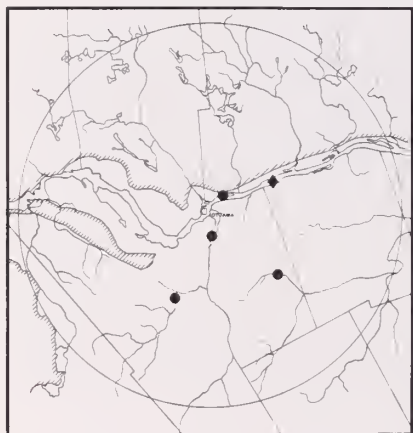
Figure 1. The fruits of Bladdernut float out of the water to varying degrees depending on the time they have been in the water and the number of seeds that have developed in the bladder. Two side views (right and left) and an end view (centre) are shown here. Drawing by M. Jomphe.

An unusual flora is to be found on the Petrie Islands, partly because of the location along the Ottawa River corridor and partly because of the human activities associated with the sand quarry. The flood plain of the Ottawa River is known to have many interesting plants that are not found away from the special habitats along the river shores. Because there is a causeway, Petrie Islands is the best spot to see first hand what the unique habitats of the sandy islands of the Ottawa River are like.

Below is a list of some of the interesting plants on the Petrie Islands. Aliens are indicated by an asterisk, and plants not given in Gillett and White (1978) are indicated by including the authorities with the scientific name.

Eragrostis hypnoides
Leersia virginica
Muhlenbergia frondosa
Panicum gattingeri Nash
Panicum tuckermanii
*Setaria verticillata**
Carex folliculata
Cyperus diandrus
Cyperus engelmannii Steudel
Juncus pelocarpus

Smilax herbacea
Populus deltoides x *P. grandidentata*
Juglans cinerea
Celtis occidentalis
*Humulus lupulus**
Boehmeria cylindrica
*Mollugo verticillata**
Desmodium canadensis
Staphylea trifolia



Figures 2. and 3. The Ottawa District distributions of three Petrie Islands plants. **left:** Bladdernut (*Staphylea trifolia*) and **right:** Hackberry (*Celtis occidentalis*; solid dots) and *Carex folliculata* (open circles). The Petrie Islands are shown as a diamond on each map.

Literature Cited

- Darbyshire, S.J., A. Letourneau and M. Manga. 1984. Trail & Landscape 18(5): 228-232.
- Gillett, J.M. and D.J. White. 1978. Checklist of vascular plants of the Ottawa-Hull region, Canada. National Museum of Natural Sciences, Ottawa. 155 pp.
- Illman, W. and A. Dugal. 1980. Bladdernut rediscovered. Trail & Landscape 14(4): 112-114. □

Atlantic Puffin Confirmed in Ontario

Bruce M. Di Labio and Jacques Bouvier

Over the years, many interesting birds have been recorded in the Ottawa Valley, and on occasion a first record for Ontario or even Canada has been discovered. The most recent addition to this category was an immature Atlantic Puffin (*Fratercula arctica*) found on a roadside 3 km southeast of Westmeath in Renfrew County. The bird was discovered by Douglas Lapointe and Cathie Tim, who saw a small black animal on the road while they were driving. Stopping to get a closer look, they discovered it to be a bird, barely alive, with ice caked on one wing and the upper tarsus of one leg. It was not like any they had ever seen.

After arriving home, they consulted their field guides and concluded it must be an Atlantic Puffin. Noting in their field guides that puffins rarely range inland, they contacted Jacques Bouvier of nearby Pembroke to report their find. That evening, they delivered the bird to Bouvier, who fed it and passed it on to Bruce Di Labio and Peter Dunn, who had driven up from Ottawa. The puffin was photographed (Figure 1) and taken to Ottawa.

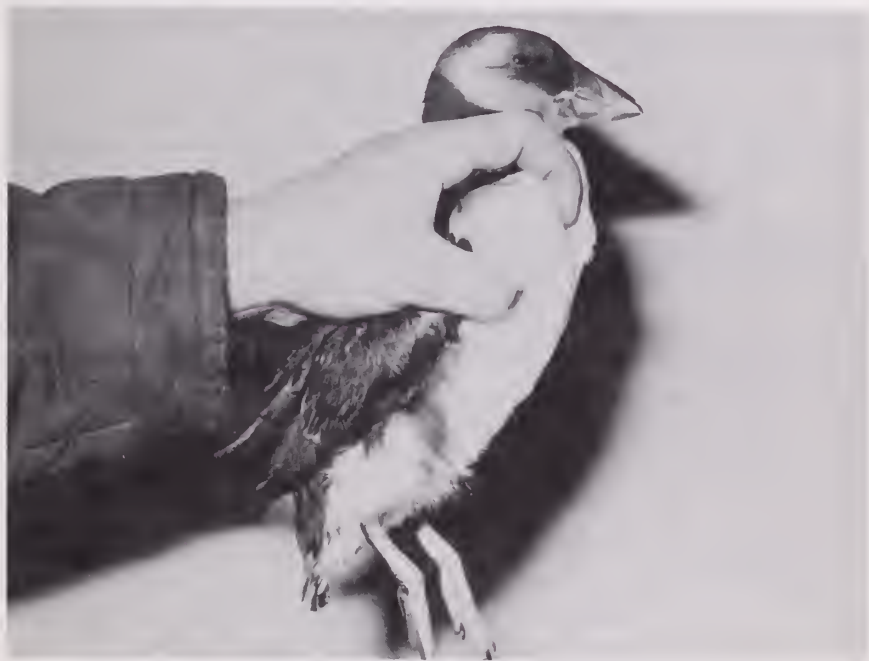


Figure 1. The Atlantic Puffin found at Westmeath, Ontario

Early the next morning, Ray Holland took the puffin to the Avian Care and Research Foundation operated by Kit and Robin Chubb in Verona north of Kingston. Upon arrival, it weighed 315 g. The normal weight, determined from specimens at the National Museum of Natural Sciences in Ottawa, is between 450 and 500 g. One specimen, from Chateauguay, Quebec, which had died of starvation, weighed 283.4 g. The puffin was kept by the Chubbs until January 10, 1986, when it was taken back to Ottawa and placed on a commercial flight to Newfoundland. It weighed 390 g, having regained a substantial portion of its lost weight. Arrangements were made to have it stay at Salmonier Wildlife Park until its feathers regained their natural waterproofing.

There is one previous record of Atlantic Puffin possibly from Ontario. White and Scott (1883) report "A young bird of this species was shot on the Ottawa River toward the end of October 1881 ... It had probably been blown inland by a severe storm, which took place some days previous". Lloyd (1923), in a list of the birds of Ottawa, writes "Accidental. One record, that of a young bird shot late in October 1881. Fate of specimen unknown but E.G. White remembers the occurrence and prepared the specimen, which was in the White collection for some time".

The question of the exact location where it was shot on the Ottawa River (which is the provincial boundary) resulted in its being given "hypothetical" status for Ontario by James *et al.* (1976). The bird from Westmeath re-established the Atlantic Puffin as a species recorded clearly within the boundaries of Ontario.



Figure 2. Atlantic Puffin records

1. December 15, 1985. Westmeath, Ontario
2. December 30, 1980. Chateauguay, Quebec
3. November 1961. Sainte-Geneviève, Quebec
4. October 30, 1949. Lake St. Peter, Quebec.

We can only speculate on the origin of the Westmeath bird. All nearest extralimital records are from the St. Lawrence River Valley in southern Quebec (Figure 2). They are single immature birds from Lake St. Peter (October 30, 1949; specimen in NMNS collection), Sainte-Geneviève (November 1961; David 1980), and Chateaugay (December 30, 1980; specimen in NMNS collection).

Other records of the Atlantic Puffin listed by the A.O.U. (1983) include Rutland, Vermont, and Toledo, Ohio. It appears that the most likely route of the Westmeath puffin is from the Gulf of St. Lawrence, up the St. Lawrence River, to the Ottawa River. How the puffin ended up on a roadside 3 km from the Ottawa River is a question in itself. It is worth mentioning that very low temperatures were recorded during the night of December 14-15, 1985, possibly freezing up the remaining open water and forcing the bird to wander inland. In checking the weather conditions prior to this occurrence, we found no evidence of strong wind or major disturbance. The puffin possibly just wandered the wrong way as do so many immature birds.

Acknowledgements

We would like to express our appreciation to the original discoverers of the bird for bringing it to our attention, to Louise Damant for typing the manuscript, and to Richard Blacquiere, David Gray, Ross Harris and Douglas McRae for their assistance in preparing this paper.

Literature Cited

- American Ornithologists' Union. 1983. Checklist of North American birds, 6th edition. Lawrence, Kansas. 877 pp.
- David, Normand. 1980. Status and distribution of the birds in southern Quebec. Cahiers d'ornithologie Victor-Gaboriault, No. 4, Club des ornithologues du Québec, Charlesbourg, Québec. 213 pp.
- James, R.D., P.L. McLaren and J.C. Barlow. 1976. Annotated checklist of the birds of Ontario. Life Sci. Misc. Pub. Royal Ontario Museum, Toronto. 75 pp.
- Lloyd, H. 1923. The birds of Ottawa. Canadian Field-Naturalist 37(6): 101-105.
- White, G.R. and W.H. Scott. 1883. Report of the Ornithological and Oological Branch for the season of 1882. Ottawa Field Naturalists Club, Transactions No. 4: 81-87.

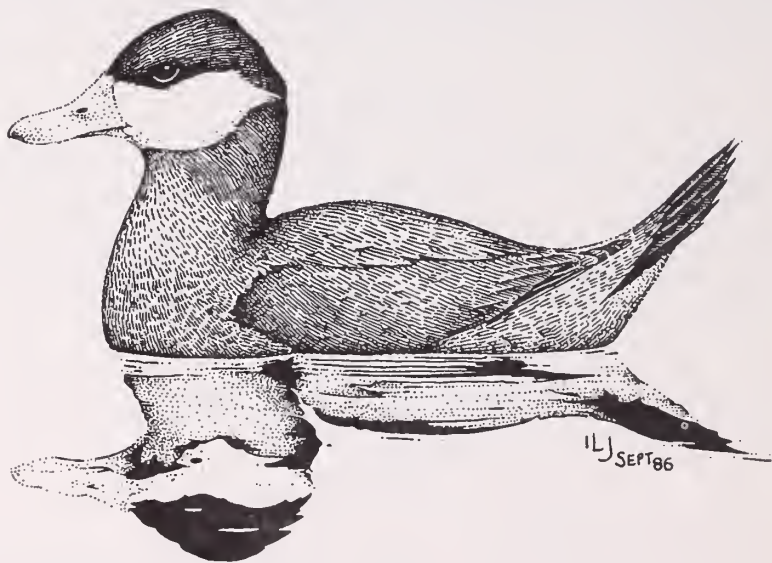
A similar account was published in Ontario Birds 4(1): 19-21 (1986). □

The Ruddy Duck in Eastern Ontario with specific reference to the Ottawa District

Christine Hanrahan

Introduction

The Ruddy Duck (*Oxyura jamaicensis*) is the only North American representative of the tribe Oxyurini (stiff-tailed ducks), of which there are eight species worldwide (Johnsgard 1965). As their name suggests, they are characterized by their stiff, long, narrow tail feathers which act as rudders when they are swimming underwater (*ibid.*), but otherwise are usually kept cocked vertically, giving these ducks their unique appearance. In Canada, the Ruddy Duck is more common in the western provinces; however, it also occurs locally and sporadically in the east, from southern Ontario through to Nova Scotia (Godfrey 1986).



Ruddy Duck

Drawing by Ian Jones

Ontario

In Ontario, the Ruddy Duck is considered a rare to uncommon local summer resident, mainly in the south but also northeast to Kingston, with a few sight records north to Cochrane (James *et al.* 1976). Summering birds have also been found in other parts of eastern Ontario. As a migrant through our province, it is observed in both spring and fall, usually singly or in small groups of up to 10 birds, but occasionally in much larger flocks. Overwintering sometimes occurs in southern Ontario.

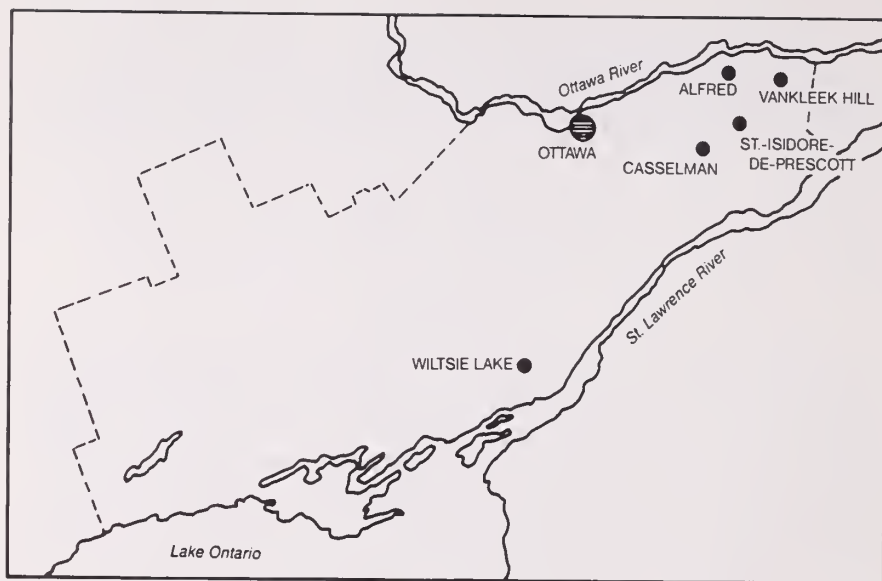
Breeding records for the Ruddy Duck in Ontario are relatively few, most occurring in the southern part of the province with only scattered reports to the northeast. The first breeding record for Ontario is somewhat ambiguous. A nest (from which an egg was taken) found in 1880 by W.H. Collins on the St. Clair Mud Flats in Lake St. Clair was later considered to be on the Michigan side of the lake (Baillie 1962). This assumption was based on the knowledge that Collins lived in Detroit and presumably made his observations from the U.S. side of the flats (*ibid.*). McIlwraith (1894) stated that nestings occurred every season in that same location; however, whether he meant that the observations were from the Ontario side or the Michigan side of the St. Clair Mud Flats is not now known.

From the disputed first record in 1880, breeding has been rather sporadic and local. More than one pair may nest in a given area; Richards (1977) noted up to 12 pairs at Luther Marsh in 1959. This species appears to return to favoured nesting sites, although seemingly not with any regularity judging by the recorded observations from various sites (Richards 1977). Therefore, abundance of Ruddy Duck nests may be higher than is suggested by the small number of known nesting sites. Richards (1977) summarizes nesting records for this species in Ontario to 1976 and should be referred to for more details.

Eastern Ontario

The Ruddy Duck appears to have been slow in establishing new breeding locations outside southern Ontario. Although the species has been observed in eastern Ontario for many years, it was usually during migration, and numbers were few. McRae (1981) notes that this species is very uncommon in Presqu'ile Park, with only one or two sightings annually.

The Ruddy Duck is a rare migrant in Peterborough County, seen only occasionally although a few summer sightings have been recorded (Sadler 1983). No indication of breeding has been noted. A pair of Ruddy Ducks was found in the vicinity of Flinton in the Perth area in 1985, but breeding was not confirmed (J. Richards, personal communication 1986).



Map of Ruddy Duck Breeding Locations in Eastern Ontario

Alfred sewage lagoon (1985, 1986)

Vankleek Hill sewage lagoon (1978, 1979, 1980, 1982)

St. Isidore de Prescott sewage lagoon (1986)

Casselman sewage lagoon (1986)

Wiltsie Lake (1982)

In Prince Edward County, this species is considered an irregular, rare, spring and fall transient (Sprague and Weir 1984). Summering birds apparently have not been found. The first recorded Ruddy Duck in the Kingston area was on November 17, 1953, when one bird was observed (Quilliam 1973). From 1960 on, there was an increase in the number of sightings, although during the 1960s there were five years when none was recorded (*ibid.*). It is primarily a fall and spring migrant; no breeding evidence has yet been found there.

Fledged young Ruddy Ducks were observed at Wiltsie Lake near Charleston Lake Provincial Park, 50 km northeast of Kingston, in 1982 (D. Sutherland, personal communication 1986), representing one of a handful of confirmed breeding reports for eastern Ontario.

The Ottawa District and Surrounding Area

Migration

Historical records for the Ottawa District indicate that during the late 1800s the Ruddy Duck was present only in the fall, sometimes in large numbers (Lloyd 1944). In summarizing its status for Ottawa in 1944, Lloyd stated that it was a rare and irregular fall transient. By the 1970s, however, it was being found in both spring and fall, with occasional summer records noted (The Shrike data 1976-1979; F. Munro, personal communication 1986). But in 1981, it could still be considered a rare migrant by area observers (The Shrike 6(4): 5 (1981)).

Numbers observed varied considerably from the mid-1970s, with an unprecedented 100 birds found at Shirleys Bay on November 3, 1975 (F. Munro, personal communication 1986), peaking at 134 on November 14th (Morin 1976). More usual were sightings of one or two birds. Most Ruddy Ducks were present for only a day, but some lingered much longer; one bird remained at Shirleys Bay in 1977 for most of May and into mid-June (The Shrike 2(4): 2 (1977)). At present, Ruddy Ducks still are not frequently observed during either spring or fall.

James (1976) gives the principal dates in Ontario for Ruddy Duck as March 15 to November 20. In the Ottawa District, most spring sightings are in May with scattered records for April. The earliest spring observation appears to be that of a male found at Shirleys Bay on April 1, 1982 (The Shrike 7(2): 12 (1982)), while the latest is apparently the bird present at Shirleys Bay in 1977 until mid-June.

Fall sightings occur primarily from late September through to late October, with a few noted into November. Two Ruddy Ducks sighted at Shirleys Bay in mid-September 1979 are, perhaps, among the earlier fall sightings; however, a male in moult was observed at Britannia on August 9, 1978, and may have been a very early fall transient. The latest date noted for the fall is mid-November 1979, when five birds were at Shirleys Bay; one stayed until December 16th, constituting our only winter record (The Shrike 4(8): 3 (1979)).

By far the majority of sightings during migration have occurred at Shirleys Bay. Other reported locations during migration have been the Rideau River, Morris Island, Richmond sewage lagoon (F. Munro, personal communication 1986), Graham's Bay, Black Bay, Britannia and the Munster sewage lagoon (The Shrike: 1976-1985).

Summer

Summer records prior to 1983 appear to be few. In 1976, one female Ruddy Duck was at Shirleys Bay from June 24th to July 4th (The Shrike 1(4): 2 (1976)); in 1978, a single bird was observed at Britannia on August 9th (although as noted above, this may have been an early fall migrant), and three males were present at Shirleys Bay from July 28th to August 2nd in 1981 (The Shrike 6(4): 5 (1981)).

In 1983, a pair of Ruddy Ducks was discovered at Casselman sewage lagoon on June 25th and noted again on August 27th (The Shrike 8(3): 11 (1983); *ibid.* 8(4): 12 (1983)). That they were the same pair and present all summer is a reasonable assumption. In 1984, a pair was again recorded at Casselman for the duration of the summer (Hanrahan and Di Labio 1984). The same year saw a female at Richmond on June 15th and a male at Shirleys Bay on July 29th (*ibid.*). By 1985, five birds could be seen at Casselman throughout the summer (Hanrahan 1985).

Numbers really skyrocketed in 1986 when up to 12 birds were noted on the Casselman sewage lagoon in mid-June. However, nine birds were more regularly observed throughout June; by July and August, numbers had dropped to between three and five birds. Summering birds were noted just outside the Ottawa District at the Alfred sewage lagoons in 1985 and 1986, and at the St. Isidore de Prescott lagoon in 1986.

Breeding

According to Pough (1951), the Ruddy Duck will readily establish nesting colonies far outside its normal breeding range, given suitable habitat. This species prefers freshwater ponds, sloughs and marshes with good stands of vegetation surrounding the open water (Harrison 1978). This dense plant growth is required for protective cover and nest building. In the Ottawa District, Casselman sewage lagoon provides just this type of habitat. Outside the District, there are three other east end sewage lagoons with similar habitat conducive to Ruddy Duck breeding: Alfred, St. Isidore de Prescott and Vankleek Hill.

The nest of the Ruddy Duck is a partly floating structure built well above water level (Harrison 1978), and anchored to the upright stalks of reeds or other marsh plants (Pough 1951). Ruddy Ducks apparently will utilize old nests of other ducks, muskrat houses or floating logs as foundations for their own somewhat poorly constructed nests (Pough 1951). The eggs, 5 to 10 in number (Godfrey 1986), are reported to be exceptionally large for so small a bird (Pough 1951, Godfrey 1986), measuring 64 x 42 mm (Harrison 1978). Ruddy Ducks are known to lay eggs in nests other than their own (Pough 1951).

The breeding season ranges from late April in the south to early June in the north (Harrison 1978). Given the small amount of data available on nesting in our area, it is difficult to come up with an average date at which breeding begins. However, judging by information on nests found between 1978 and 1980 at Vankleek Hill, as well as observations of broods found in 1986, it is reasonable to speculate that breeding gets underway from late May to mid-June. Incubation, by the female, takes about 24 days (Harrison 1978) or 25 to 27 days (Godfrey 1986). Once the precocial young are born, the male assumes brooding duties along with the female, behaviour atypical of most duck species.

Although the Ruddy Duck was observed sporadically in the Ottawa area from the late 1800s, no evidence of breeding was noted until 1978 when two nests were found in the Vankleek Hill sewage lagoon by B. Radix and A. Fraser. This was a significant find for it constituted the first known breeding record for the Ruddy Duck in eastern Ontario. In that year (1978), a nest containing three eggs was found on June 8th; several days later there were six eggs, but by July 1st, the nest apparently had been destroyed, for no trace of it could be found (B. Radix, personal communication 1986). A renesting was successful, and three young subsequently were hatched (*ibid.*). In 1979, two nests, one with nine eggs, were again discovered, but no young were found (*ibid.*). In 1980, two pairs of Ruddy Ducks were noted on the lagoon, and two nests (one with 10 eggs, the other with eight) were found; however, only one young bird was seen in August (*ibid.*). In 1982, a nest with eggs was found, but after this date the dense cattail growth was destroyed, thus eliminating Ruddy Duck nesting habitat. No Ruddy Ducks were sighted on the particular lagoon until 1985, when a single male was observed during the summer on two separate occasions. Although the lagoon is once again vegetated, no evidence of further Ruddy Duck breeding has been found, and during 1986 this species apparently was not observed (B. Radix, personal communication 1986).

Breeding was not noted again in eastern Ontario until 1985 when a family of young was found on the Alfred sewage lagoon by atlassers involved in the Ontario Breeding Bird Atlas project (1981-1985). It wasn't until 1986 that a real increase in breeding occurred in the area. The first family of the year was noted at Alfred on July 5th when a male was observed with five unfledged young. A second brood was discovered there about five weeks later. 1986 was also the first year that the St. Isidore de Prescott lagoon was found to have breeding Ruddy Ducks; in early August, two broods were noted there.

With the increasing numbers of Ruddy Ducks present each summer from 1983 on, it was only a matter of time before breeding would be found within the Ottawa District itself. Speculation centred on the Casselman sewage lagoon where up to 10 males and two females had been sighted in the summer of 1986. The

habitat was suitable and breeding was occurring on similar lagoons nearby. Therefore, when breeding was indeed confirmed at Casselman on August 9th, it was no great surprise. The two young ducks found there constitute the first breeding record for the Ottawa District (Gawn 1986).

To date, all four breeding locations in this area have been sewage lagoons, and it is reasonable to conclude that the favourable habitat provided by these places is directly responsible for encouraging Ruddy Ducks to stay and breed. If conditions remain much as they are at present, breeding on at least some of the lagoons should become a regular occurrence. However, if conditions do change, as they did at Vankleek Hill, the disruption of Ruddy Duck breeding habitat could have negative consequences. It was noted above that although the Vankleek Hill lagoons are now revegetated, Ruddy Ducks have not re-established nesting territory there. Of course, there may be other factors influencing their failure to nest again in this particular site. Nonetheless, it will be interesting to watch this species over the next few years to see whether breeding in this area continues.

Acknowledgements

I would like to thank Frank Munro for kindly providing me with 20 years worth of Ruddy Duck records for the Ottawa area. Bill Radix deserves special thanks for all the information given concerning the first known eastern Ontario breeding record. I would like especially to acknowledge Jim Richards for all the work he did in gathering together Ruddy Duck records for eastern Ontario. Thanks are due also to the following people for helping me track down Ruddy Duck records: Stephen Gawn, Brian Morin, Don Sutherland and Dan Welsh. Many thanks to Ian Jones for the fine drawing of the Ruddy Duck for my article.

Literature Cited

- Baillie, J. 1962. Fourteen additional Ontario breeding birds. *Ontario Field Biologist* 10: 1-3.
- Gawn, M. 1986. Recent bird sightings. *Trail & Landscape* 20(5): 209-215.
- Godfrey, W.E. 1986. The birds of Canada. National Museums of Canada. 595 pp.
- Hanrahan, C. 1985. Recent bird sightings. *Trail & Landscape* 19(5): 238-242.
- Hanrahan, C. and B. Di Labio. 1984. Recent bird sightings. *Trail & Landscape* 18(5): 233-238.

- Harrison, C. 1978. A field guide to the nests, eggs and nestlings of North American birds. Collins. 416 pp.
- James, R.D., P.L. McLaren and J.C. Barlow. 1976. Annotated checklist of the birds of Ontario. Life Sciences Misc. Pub., Royal Ontario Museum. 75 pp.
- Johnsgard, P.A. 1965. Handbook of waterfowl behaviour. Cornell University Press.
- Lloyd, H. 1944. The birds of Ottawa, 1944. Canadian Field-Naturalist 58(5): 143-175.
- McIlwraith, T. 1894. The bird of Ontario. 2nd edition. William Briggs, Toronto. 417 pp.
- McRae, R.D. 1981. Birds of Presqu'ile Ontario. Ontario Ministry of Natural Resources. 74 pp.
- Morin, B. 1976. Birds of November-December 1975. Trail & Landscape 10(2): 45-47.
- Pough, R.H. 1951. Audubon water bird guide. Doubleday. 352 pp.
- Quilliam, H. 1973. History of the birds of Kingston, Ontario. Kingston Field Naturalists. 209 pp.
- Richards, J.M. 1977. A summary of nesting records for Ruddy Duck, *Oxyura jamaicensis*, in Ontario, with particular reference to the Regional Municipality of Durham. Ontario Field Biologist 31(2): 45-47.
- Sadler, D. 1983. Our heritage of birds. Peterborough County in the Kawarthas. Peterborough Field Naturalists. 190 pp.
- Sprague, R.T. and R.D. Weir. 1984. The birds of Prince Edward County. Kingston Field Naturalists. 190 pp. ▢

Update on Area Bird Feeders

This year, the Rockcliffe feeder has been moved to the west side of Hillsdale Road near the end of Sandridge Road. Although screened by a group of White Spruce, this feeder is visible from the road for the benefit of the handicapped.

For complete information on Ottawa area bird feeders, refer to Gordon Pringle's article in the last issue of *Trail & Landscape* ▢

Checklist of the Fishes of the Ottawa District

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The most recent list of fishes of the Ottawa District[#] is that of McAllister and Coad (1974), which should be referred to for descriptions, illustrations and distribution maps. Several species can now be added to the fauna, nomenclatorial changes incorporated, comments made on the rarer species, and recent literature recorded to bring information on local fishes up to date. Detailed locality data are on file at the National Museum of Natural Sciences. Species marked by an asterisk (*) are introduced to the District.

Family Petromyzontidae

1. Northern Brook Lamprey / Lamproie du nord

Ichthyomyzon fossor Reighard and Cummins 1916

The presence of this species in the Ottawa River is uncertain. It presents a unique problem in identification because of its life history. This is a non-parasitic species of lamprey which does not feed as an adult but devotes its energies to reproduction. Ammocoetes, or larval lampreys, can be caught in the spring by electrofishing, the easiest method of extracting them from the mud or sand in which they lie partially buried. Adults of this species cannot be found attached and parasitic on other fishes as can the Silver Lamprey, and they are too slender to show up in traps or seine hauls. Ammocoetes of the Northern Brook Lamprey and the Silver Lamprey are almost impossible to separate and identify. Lanteigne (1981) plots this species at Ottawa on a map, but Rohde and Lanteigne in Lee *et al.* (1980) do not. I suspect that the Northern Brook Lamprey is present in the Ottawa River, but the only way to confirm this is to catch the adults on the spawning grounds. Thus far, attempts to do this have failed because these lampreys spawn in early spring when the river is "in the trees" and fine-mesh nets cannot be used, electrofishing in water of uncertain depth can be shocking, and the water is freezing anyway.

[#] the area within 50 km of the Peace Tower.

2. Silver Lamprey / *Lamproie argentée*

Ichthyomyzon unicuspis Hubbs and Trautman 1937

A description of this species based on District specimens can be found in Lanteigne (1981).

3. American Brook Lamprey / *Lamproie de l'est*

Lampetra appendix (DeKay 1842)

This species was known formerly as *L. lamotteni* Le Sueur, but confusion surrounds Le Sueur's application of this name to a species and *L. appendix* is the next available name (Robins *et al.* 1980). If you wish to be confused further, read Vladykov and Kott (1982), who propose the name *Lethenteron wilderi* (Gage 1896) for the American Brook Lamprey. I have used *Lampetra appendix* since this is the name adopted in recent lists (Robins *et al.*, Lee *et al.* 1980). It has been collected several times in recent years in the Ottawa River at Upper and Lower Duck Islands and Kettle Island, as well as near the mouths of the Petite Blanche River and Green's Creek. The occurrence and growth of this species locally is given by Lanteigne *et al.* (1981).

Family Acipenseridae

4. Lake Sturgeon / *Esturgeon jaune*

Acipenser fulvescens Rafinesque 1817

Family Lepisosteidae

5. Longnose Gar / *Lépisosté osseux*

Lepisosteus osseus (Linnaeus 1758)

Family Amiidae

6. Bowfin / *Poisson-castor*

Amia calva Linnaeus 1766

This species is still not represented by a museum specimen, but competent fishermen familiar with a variety of fishes in the District have reported it from Rockland and, most recently, from below the Parliament Buildings in the Ottawa River! (J. McLoughlin, personal communication 1986). It is very rare since many hours of fishing yield only the odd specimen.

Family Hiodontidae

7. Mooneye / *Laquaiche argentée*

Hiodon tergisus Le Sueur 1818

The biology of this species in the Ottawa River was described by Talajic (1980).

Family Clupeidae

8. Gaspereau / Gaspereau

Alosa pseudoharengus (Wilson 1811)

Reported from the Ottawa District by Coad (1983).

Family Anguillidae

9. American Eel / Anguille d'Amérique

Anguilla rostrata (Le Sueur 1817)

Williams, Koehn and Thorsteinsson (1984) have argued on biochemical evidence that the American Eel is only subspecifically distinct from the European Eel (*Anguilla anguilla* (Linnaeus 1758)). I have retained the American Eel as a full species until more evidence is forthcoming.

Family Esocidae

10. Muskellunge / Maskinongé

Esox masquinongy Mitchill 1824

Since 1974, the National Museum has received collections of this species from the Rideau River and the Ottawa River.

11. Northern Pike / Grand brochet

Esox lucius Linnaeus 1758

Family Umbridae

12. Central Mudminnow / Umbre de vase

Umbra limi (Kirtland 1841)

Family Salmonidae

13. Lake Cisco / Cisco de lac

Coregonus artedii Le Sueur 1818

No recent collections of this species have been deposited in the National Museum. The one specimen in the National Museum was taken in Lac Lapêche in 1936. This, and other species preferring cold water such as *Coregonus clupeaformis*, *Salvelinus namaycush* and *S. fontinalis*, were once abundant in Gatineau Park but are now absent from many lakes or reduced in numbers (Rubec 1975a).

14. Lake Whitefish / Grand corégone

Coregonus clupeaformis (Mitchill 1818)

Still based on literature records with no recent collections in the National Museum.

15. *Cutthroat Trout / Truite fardée

Salmo clarki Richardson 1836

This Pacific coast species has been introduced into the Ottawa District according to a map in Bergeron and Brousseau (1981). It is not known if the introduction is reproducing and maintaining itself, and the exact locality is not listed.

16. *Rainbow Trout / Truite arc-en-ciel

Salmo gairdneri Richardson 1836

Local specimens are now in the National Museum from Thistle's Trout Farm, Goulbourn Township.

17. *Atlantic Salmon / Saumon atlantique

Salmo salar Linnaeus 1758

Blais and Legendre (1978) list several localities in Quebec where the Ouananiche, a freshwater resident salmon, has been introduced. As with the Cutthroat Trout, continued survival is not confirmed, and we have no specimens in the National Museum. One locality within the Ottawa District is Lac St.-Charles, where 1,000 alevins were introduced in 1966.

18. *Brown Trout / Truite brune

Salmo trutta Linnaeus 1758

19. Arctic Charr / Omble chevalier

Salvelinus alpinus (Linnaeus 1758)

Still based on literature records with no recent collections deposited at the National Museum.

20. Brook Charr (Trout) / Omble de fontaine

Salvelinus fontinalis (Mitchill 1814)

21. Lake Charr (Trout) / Touladi

Salvelinus namaycush (Walbaum 1792)

No recent collections of this species have been deposited in the National Museum.

Family Osmeridae

22. Rainbow Smelt / Eperlan arc-en-ciel

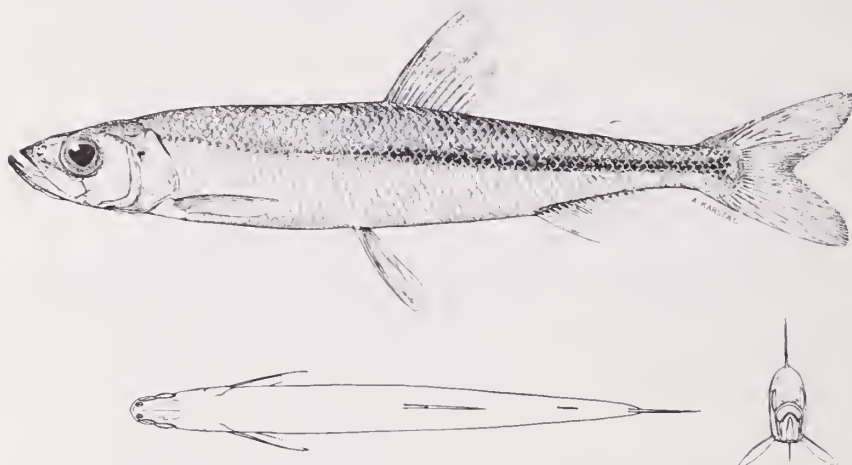
Osmerus mordax (Mitchill 1814)

23. *Pygmy Smelt / Eperlan nain

Osmerus spectrum Cope 1870

Lanteigne and McAllister (1983) resurrect this forgotten sibling species and report it in Meech Lake, Gatineau Park, where the population originated as an introduction from Utopia Lake, New Brunswick. The Pygmy Smelt is distinguished from the Rainbow Smelt, which occurs with it in lakes, by a higher gill raker count (32-36 versus 28-34), relatively larger eye (orbit diameter 4.4-6.5 as % of standard length versus 7.0-11.3), lower lateral scale counts (58-65 versus 61-67), and smaller maximum

size (113.7 mm versus 205.1 mm standard length). Pygmy Smelt spawn later than Rainbow Smelt in the same lake, and food and growth patterns differ.



PYGMY SMELT *Osmerus spectrum* total length 110 mm NMC 79-834

Family Cyprinidae

24. ***Common Carp / Carpe**

Cyprinus carpio Linnaeus 1758

25. **Brassy Minnow / Méné laiton**

Hybognathus hankinsoni Hubbs in Hubbs and Greene 1928

26. **Eastern Silvery Minnow / Méné d'argent de l'est**

Hybognathus regius Girard 1856

This species was listed previously as *H. nuchalis*, but fishes recognized under this name were found to contain three species, with those in Atlantic drainages now placed in *H. regius* (Pflieger 1971, Robins et al. 1980).

27. **Golden Shiner / Chatte de l'est**

Notemigonus crysoleucas (Mitchill 1814)

28. **Emerald Shiner / Méné émeraude**

Notropis atherinoides Rafinesque 1818

29. **Common Shiner / Méné à nageoires rouges**

Notropis cornutus (Mitchill 1817)

30. **Blackchin Shiner / Menton noir**

Notropis heterodon (Cope 1864)

31. **Blacknose Shiner / Museau noir**
Notropis heterolepis Eigenmann and Eigenmann 1893
32. **Spottail Shiner / Queue à tache noir**
Notropis hudsonius (Clinton 1824)
33. **Rosyface Shiner / Tête rose**
Notropis rubellus (Agassiz 1850)
34. **Spotfin Shiner / Méné bleu**
Notropis spilopterus (Cope 1869)
 Recent collections were described by Coad (1987c).
35. **Sand Shiner / Méné paille**
Notropis stramineus (Cope 1864)
 Recently caught from the Mississippi River at Pakenham and the Jock River at Jockvale, but not one of our commonest species.
36. **Mimic Shiner / Méné pâle**
Notropis volucellus (Cope 1864)
37. **Northern Redbelly Dace / Ventre rouge du nord**
Phoxinus eos (Cope 1862)
 This species, and the one below, were placed in the genus *Chrosomus*, but Banareescu's (1964) synonymy of this American genus with the European *Phoxinus* is becoming more generally accepted. This name change has turned full circle, as the original describer, Edward Drinker Cope, placed *neogaeus* in *Phoxinus* in 1869.
38. **Finescale Dace / Ventre citron**
Phoxinus neogaeus Cope 1869
39. **Bluntnose Minnow / Ventre-pourri**
Pimephales notatus (Rafinesque 1820)
40. **Fathead Minnow / Tête-de-boule**
Pimephales promelas (Rafinesque 1820)
 Reproduction in this species was described by Coad (1987a).
41. **Longnose Dace / Naseaux de rapides**
Rhinichthys cataractae (Valenciennes in Cuvier and Valenciennes 1842)
42. **Creek Chub / Mulet à cornes**
Semotilus atromaculatus (Mitchill 1818)
43. **Fallfish / Ouitouche**
Semotilus corporalis (Mitchill 1817)
44. **Pearl Dace / Mulet perlé**
Semotilus margaritus (Cope 1869)

Family Catostomidae

45. Quillback / Couette

Carpiodes cyprinus (Le Sueur 1817)

Still a rarely-caught species in the District with a further three specimens taken since 1974.

46. Longnose Sucker / Meunier rouge

Catostomus catostomus (Forster 1773)

The presence of this species in the Ottawa District is based on a record by Dymond (1939), who apparently did not see any specimens and relied on a report by a local resident. There are no specimens in the National Museum collections, and the presence of this species in the area is suspect.

47. White Sucker / Meunier noir

Catostomus commersoni (Lacepède 1803)

The spawning run of this species was described for District fish by Coad (1987b).

48. Silver Redhorse / Suceur blanc

Moxostoma anisurum (Rafinesque 1820)

Further collections of this species have been made from Brewery Creek, the Ottawa River, the Mississippi River, the Rideau River and Bear Brook.

49. River Redhorse / Suceur ballot

Moxostoma carinatum (Cope 1870)

Classified as "rare" in Canada, this species is threatened in the Mississippi River by a proposed power project. Numbers in the District appear to have declined (McAllister *et al.* (1985)).

50. Shorthead Redhorse / Suceur rouge

Moxostoma macrolepidotum (Le Sueur 1817)

51. Greater Redhorse / Suceur jaune

Moxostoma valenciennesi Jordan 1886

Only five further specimens have been caught since 1974, in the Ottawa River and Bear Brook.

Family Ictaluridae

52. Yellow Bullhead / Barbotte jaune

Ictalurus natalis (Le Sueur 1819)

A rare species in the District with no further collections deposited in the National Museum since 1974.

53. Brown Bullhead / Barbotte brune

Ictalurus nebulosus (Le Sueur 1819)

Rubec (1975b) and Rubec and Qadri (1982) give extensive details on the biology of this species in the Ottawa River.

Gunn (1976) and Gunn *et al.* (1977) discuss the use by bullheads of algae as a food source.

54. Channel Catfish / Barbue de rivière

Ictalurus punctatus (Rafinesque 1818)

The biology and distribution of this species in the Ottawa River was described by Smith (1974).

55. Stonecat / Barbotte des rapides

Noturus flavus Rafinesque 1818

A rarely-caught species with only three additional specimens taken since 1974; however, this nocturnal fish may be commoner than collections indicate.

56. Tadpole Madtom / Chat-fou brun

Noturus gyrinus (Mitchill 1817)

57. *Margined Madtom / Chat-fou livré

Noturus insignis (Richardson 1856)

This species was thought to have been introduced to Canada (Rubec and Coad 1974), but another locality has been found in Ontario outside the District. It may be native. Coad (1986) gave further information on local collections.

Family Gadidae

58. Burbot / Lotte

Lota lota (Linnaeus 1758)

There are 10 collections of this species in the National Museum made since 1974, all from the Ottawa River. Hanson and Qadri (1980b) gave details of the diet and morphology of young Burbot from the Ottawa River.

Family Percopsidae

59. Trout-perch / Omisco

Percopsis omiscomaycus (Walbaum in Artedi 1792)

Family Fundulidae

60. Banded Killifish / Fondule barré

Fundulus diaphanus (Le Sueur 1817)

Family Atherinidae

61. Brook Silverside / Crayon d'argent

Labidesthes sicculus (Cope 1865)

Once known only from the Rideau River, this species has now been taken in the Ottawa River.

Family Centrarchidae

62. Rock Bass / Crapet de roche

Ambloplites rupestris (Rafinesque 1817)

63. Pumpkinseed / Crapet-soleil

Lepomis gibbosus (Linnaeus 1758)

The biology of this species in the Ottawa River was described by Boyle (1977), Hanson (1980), and Hanson and Qadri (1984).

64. Bluegill / Crapet arlequin

Lepomis macrochirus Rafinesque 1819

An additional 10 specimens have been taken from the Ottawa River at Kettle Island, Patterson Creek on the Rideau Canal, and the Rideau River north of Manotick.

65. Smallmouth Bass / Achigan à petite bouche

Micropterus dolomieu Lacepède 1802

66. Largemouth Bass / Achigan à grande bouche

Micropterus salmoides (Lacepède 1802)

The biology of this species in the Ottawa River was described by Hanson (1980).

67. Black Crappie / Marigane noir

Pomoxis nigromaculatus (Le Sueur 1829)

Hanson and Qadri (1979, 1980a, 1984) and Hanson (1980) described the growth, food and feeding habits of young Black Crappie in the Ottawa River.

Family Percidae

68. Iowa Darter / Dard à ventre jaune

Etheostoma exile (Girard 1860)

69. Fantail Darter / Dard barré

Etheostoma flabellare Rafinesque 1819

No recent collections have been deposited in the National Museum; it appears to be rare in the District.

70. Johnny Darter / Raseux-de-terre

Etheostoma nigrum Rafinesque 1820

71. Tesselated Darter / Dard tesselé

Etheostoma olmsted Storer 1842

The validity of this species has been reaffirmed recently (Chapleau and Pageau 1985).

72. Yellow Perch / Perchaude

Perca flavescens (Mitchill 1814)

The biology and pollutant accumulation of this species in the Ottawa River has been described by Rodgers (1976) and Rodgers and Qadri (1982).

73. Logperch / Dard-perch

Percina caprodes (Rafinesque 1818)

74. Channel Darter / Dard gris

Percina copelandi (Jordan 1877)

A candidate for rare or threatened status in Canada (McAllister et al. 1985). There are no collections from the District; inclusion is based on a literature record.

75. Sauger / Doré noir

Stizostedion canadense (Smith in Cuvier 1834)

76. Walleye / Dorée jaune

Stizostedion vitreum (Mitchill 1818)

The biology of the above two species has been studied in the Ottawa River by Osterberg (1978).

Family Sciaenidae

77. Freshwater Drum / Malachigan

Aplodinotus grunniens Rafinesque 1819

There are no recent collections; it appears to be rare in the District.

Family Cottidae

78. Mottled Sculpin / Chabot tacheté

Cottus bairdi Girard 1850

Family Gasterosteidae

79. Brook Stickleback / Epinoche à cinq épines

Culaea inconstans (Kirtland 1841)

The reproduction of this species has been described by Nicol (1981).

80. Threespine Stickleback / Epinoche à trois épines

Gasterosteus aculeatus Linnaeus 1758

Coad (1985b) described populations of this species in the District.

81. Ninespine Stickleback / Epinoche à neuf épines

Pungitius pungitius (Linnaeus 1758)

No recent collections have been deposited in the National

Museum from the District; this species is known only from a literature record.

Species in Adjacent Areas

The following list is of species which are found immediately outside the 50 km radius of the Ottawa District and which may eventually be captured within this boundary. Sources for distributions in nearby areas are Scott and Crossman (1973) (reference 1 below), McAllister and Coad (1974) (2), Mongeau *et al.* (1976) (3), Lee *et al.* (1980) (4), Bergeron and Brousseau (1981) (5) and National Museum collections (6).

Family Petromyzontidae

1. Sea Lamprey / Grande lamproie marine
Petromyzon marinus Linnaeus 1758 (1,2,4)

Family Acipenseridae

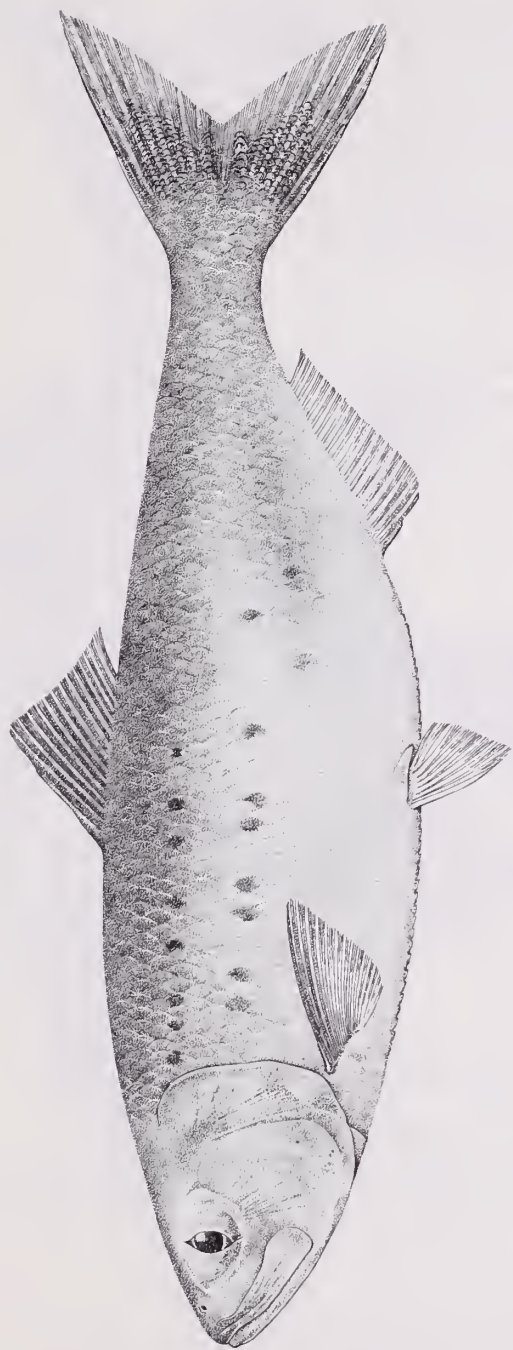
2. Atlantic Sturgeon / Esturgeon noir
Acipenser oxyrhynchus Mitchill 1815 (1,4)

Family Clupeidae

3. American Shad / Alose savoureuse
Alosa sapidissima (Wilson 1811) (1,2,3,4,5)
We have specimens of this species from "a lake on the Quebec side", but there is no accurate locality data.
4. Gizzard Shad / Alose à gésier
Dorosoma cepedianum (Le Sueur 1818) (1,2,3,4,6)

Family Salmonidae

5. *Coregonus* sp.?
Pariseau *et al.* (1983) report a spring-spawning population of Lake Cisco (*Coregonus artedii*) from Lac des Ecorces just north of the District in the Lièvre River basin. Lake Cisco spawn in the fall, and a spring-spawning population must be reproductively isolated and distinct.
6. Round Whitefish / Ménomini rond
Prosopium cylindraceum (Pallas 1784) (1,2,5)



3. AMERICAN SHAD *Alosa sapidissima*

total length 410 mm NMC 66-43
illustration by Charles Douglas

Family Esocidae

7. Redfin Pickerel / Brochet d'Amérique

Esox americanus americanus Gmelin 1788 (1,2,4)

8. Grass Pickerel / Brochet vermiculé

Esox americanus vermiculatus Le Sueur in Cuvier and Valenciennes 1846 (1,2,3,4)

9. Chain Pickerel / Brochet maillé

Esox niger Le Sueur 1818 (1,2)

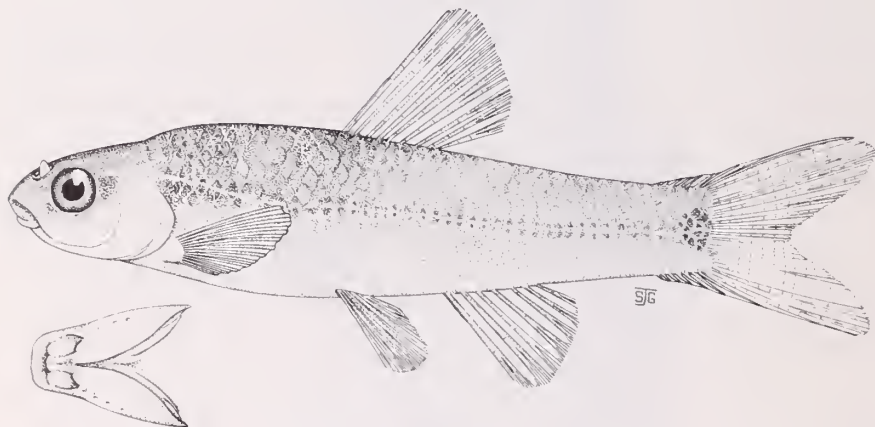
Family Cyprinidae

10. Lake Chub / Méné de lac

Couesius plumbeus (Agassiz 1850) (1,2,3,4,5,6)

11. Cutlips Minnow / Bec de lièvre

Exoglossum maxillingua (Le Sueur 1817) (1,2,3,4,5)



CUTLIPS MINNOW *Exoglossum maxillingua* total length 40 mm
NMC 71-249 illustration by Sally Gadd

12. Bridle Shiner / Méné d'herbe

Notropis bifrenatus (Cope 1869) (1,2,3,4)

13. Blacknose dace / Naseux noir

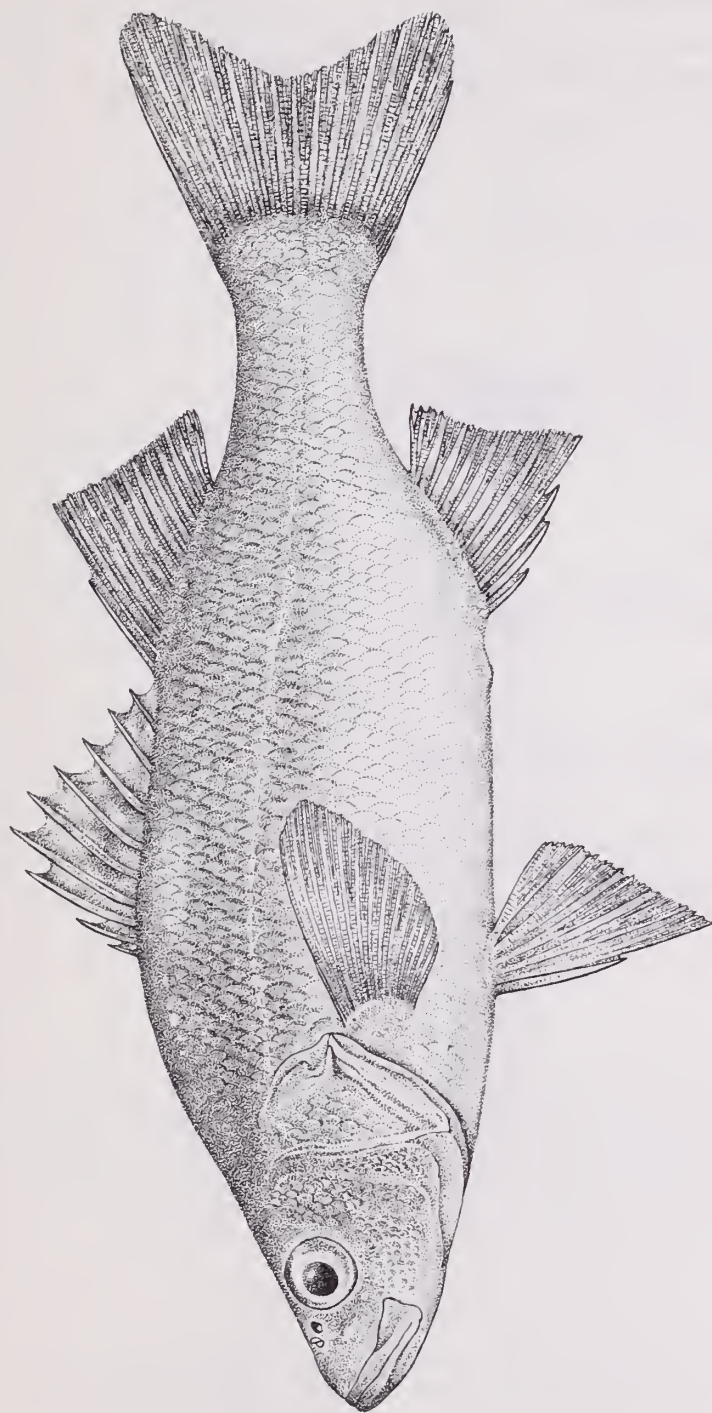
Rhinichthys atratulus (Hermann 1804) (1,2,3,4,5)

The record in reference 1 for the Ottawa District is an error, but this species is found in waters near the District.

Family Catostomidae

14. Copper Redhorse / Suceur cuivré

Moxostoma hubbsi Legendre 1952 (1,2,3,4)



15. WHITE PERCH *Morone americana*

total length 281 mm NMC 82-640
illustration by Charles Douglas

Family Percichthyidae

15. White Perch / Baret

Morone americana (Gmelin 1788) (1,2,3,4)

16. White Bass / Bar blanc

Morone chrysops (Rafinesque 1820) (1,2,3,4)

17. Striped Bass / Bar rayé

Morone saxatilis (Walbaum 1792) (3,4)

Family Centrarchidae

18. Longear Sunfish / Crapet à longues oreilles

Lepomis megalotis (Rafinesque 1820) (1,3,4,5)

Coad (1985a) showed that a record for the Ottawa District was an error.

Family Percidae

19. Eastern Sand Darter / Dard de sable

Ammocrypta pellucida (Agassiz in Putnam 1863) (1,2,4)

Family Cottidae

20. Slimy Sculpin / Chabot visqueux

Cottus cognatus Richardson 1836 (1,4,5,6)

21. Spoonhead Sculpin / Chabot à tête plate

Cottus ricei (Nelson 1876) (1,2,4,5,6)

22. Deepwater Sculpin / Chabot de profondeur

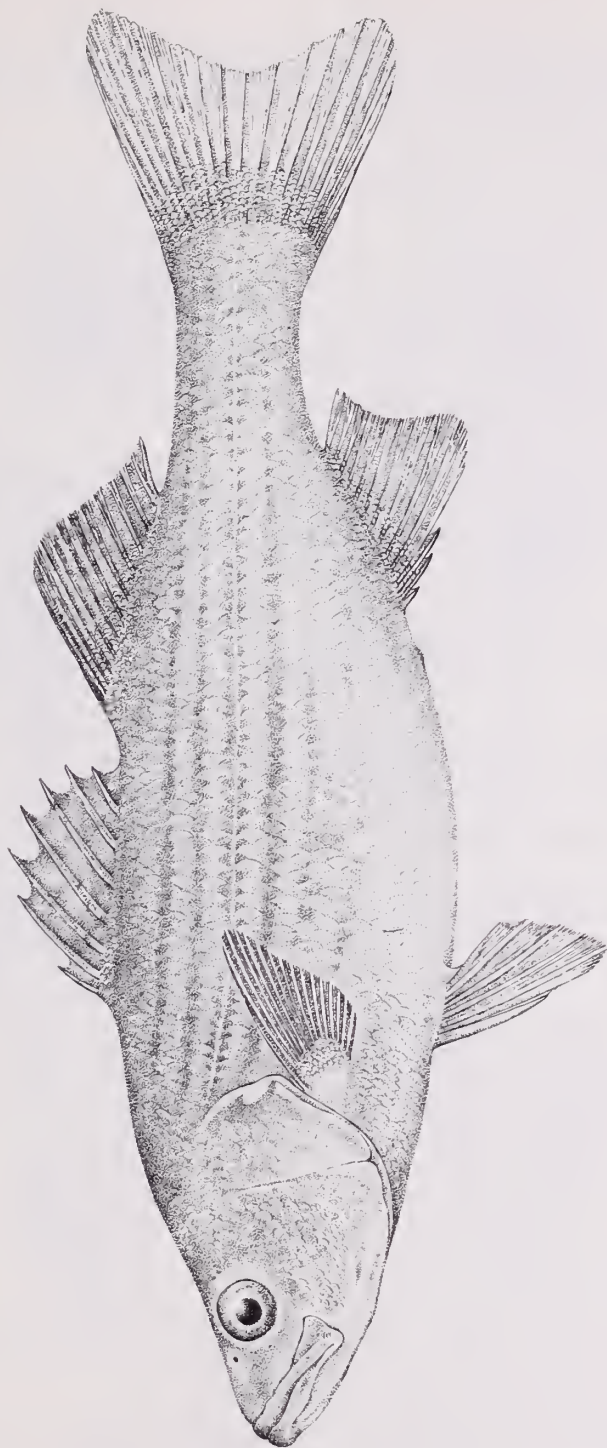
Myoxocephalus thompsoni (Girard 1852) (1,2,4,5,6)

Acknowledgements

I am indebted to Sylvie Laframboise for running a computer search of National Museum collections. The manuscript was read critically by Dr. Don E. McAllister, Research Curator of Fishes, National Museum of Natural Sciences, Ottawa, and by Claude B. Renaud, Department of Biology, University of Ottawa. C.B. Renaud helped search out some of the references cited here.

Literature Cited and Other References

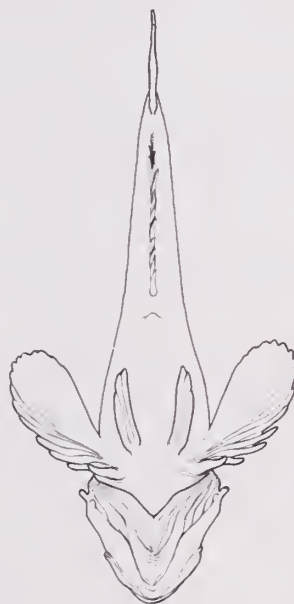
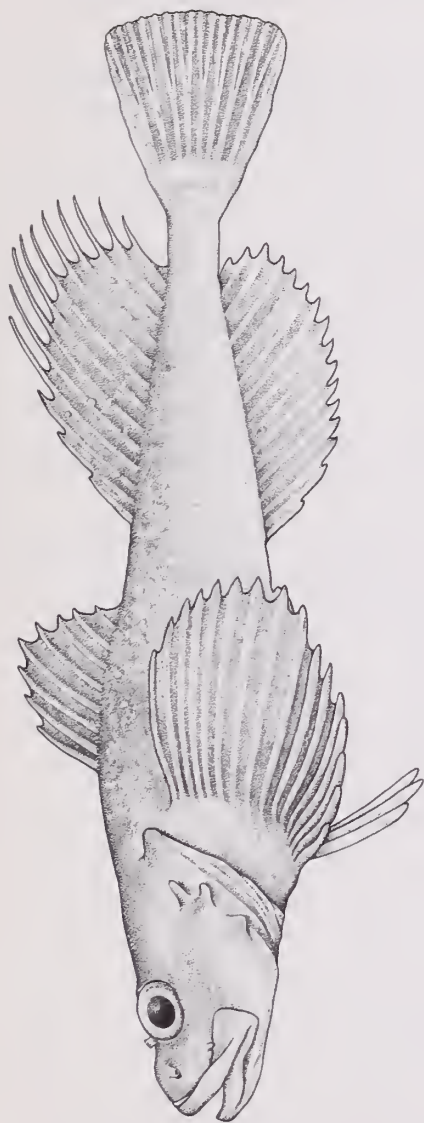
- Banarescu, P. 1964. Pisces - Osteichthyes (Pesti Ganoizi si Ososi). Fauna Republicii Populare Romine XIII: 1-959.



17. STRIPED BASS *Morone saxatilis*

total length 346 mm NMC 66-48
illustration by Charles Douglas

- Beaulieu, M.-A., S.U. Qadri and J.M. Hanson. 1979. Age, growth, and food habits of the pumpkinseed sunfish, *Lepomis gibbosus* (Linnaeus), in Lac Vert, Québec. *Le Naturaliste canadien* 106(5-6): 547-553.
- Bergeron, J.F. et J. Brousseau. 1981. Guide des poissons d'eau douce du Québec. Direction générale de la faune, Québec. xvii + 217 pp.
- Blais, J.-P. et V. Legendre. 1978. Tentatives de création d'eaux à ouananiches: les introductions des saumons atlantiques, *Salmo salar*, marins et dulcicoles dans les eaux douces du Québec, 1867-1977. Rapport technique, Service de l'Aménagement et de l'Exploitation de la Faune, Québec. 124 pp.
- Boyle, R. 1977. Age, growth, development, food, fecundity, and maturation of the pumpkinseed, *Lepomis gibbosus*, in the Ottawa River, near Ottawa and Hull, Canada. B.Sc. Honours Thesis, University of Ottawa. 105 pp.
- Chapleau, F. and G. Pageau. 1985. Morphological differentiation of *Etheostoma olmstedi* and *E. nigrum* (Pisces: Percidae) in Canada. *Copeia* 1985(4): 855-865.
- Coad, B.W. 1983. The Alewife, *Alosa pseudoharengus* (Wilson) a fish new to the National Capital Region (Osteichthyes: Clupeidae). *Trail & Landscape* 17(5): 256-258.
- Coad, B.W. 1985a. Out damned spot! *Trail & Landscape* 19(2): 76-77.
- Coad, B.W. 1985b. Plate morphs of the Threespine Stickleback in the National Capital Region. *Trail & Landscape* 19(4): 220-225.
- Coad, B.W. 1986. The Margined Madtom, *Noturus insignis*, in Canada. *Trail & Landscape* 20(3): 102-108.
- Coad, B.W. 1987a. The sex life of the male fathead. *Trail & Landscape*, in press.
- Coad, B.W. 1987b. Sucker run. *Trail & Landscape*, in prep.
- Coad, B.W. 1987c. The Spotfin Shiner in the Ottawa District. *Trail & Landscape*, in press.
- Dumont, P. 1982. Dispersion post-glaciaire de l'omble chevalier d'eau douce (*Salvelinus alpinus*) dans le Québec méridional. *Le Naturaliste canadien* 109: 229-234.
- Dymond, J.R. 1939. The fishes of the Ottawa region. *Contributions of the Royal Ontario Museum* 15: 1-43.



C. Thompson

22. DEEPWATER SCULPIN *Myoxocephalus thompsoni*

total length 158 mm NMC 60-493A
illustration by Charles Douglas

- Faber, D.J. 1984-1985. Water babies - larval fishes of Ottawa and vicinity. Part I. Distribution and phenology of baby fishes in lakes and ponds. *Trail & Landscape* 18(2): 84-92 (1984). Part II. Anatomy of larval fishes. *Trail & Landscape* 18(4): 198-204 (1984). Part III. Larval fishes of shallow water species. *Trail & Landscape* 18(5): 273-283 (1984). Part IV. Larval fishes of deep water species. *Trail & Landscape* 19(1): 18-25 (1985).
- Gunn, J.M. 1976. Algae as an energy source for the omnivorous brown bullhead (*Ictalurus nebulosus*) in the Ottawa River. M.Sc. Thesis, University of Ottawa. iv + 88 pp.
- Gunn, J.M., D.C. Mortimer and S.U. Qadri. 1977. Filamentous algae as a food source for the brown bullhead (*Ictalurus nebulosus*). *Journal of the Fisheries Research Board of Canada* 34(3): 396-401.
- Holliday, J. 1985. Winter kill of fishes in Mud Lake. *Trail & Landscape* 19(2): 75.
- Hanson, J.M. 1980. Growth and ecological interactions of the young-of-the-year of three species of sunfish (Centrarchidae) in the Ottawa River near Ottawa, Canada. M.Sc. Thesis, University of Ottawa. xx + 229 pp.
- Hanson, J.M. and S.U. Qadri. 1979. Seasonal growth, food, and feeding habits of young-of-the-year Black Crappie in the Ottawa River. *Canadian Field-Naturalist* 93(3): 232-238.
- Hanson, J.M. and S.U. Qadri. 1980a. Observations on the biology of black crappie, *Pomoxis nigromaculatus* (Le Sueur), in the Ottawa River. *Le Naturaliste canadien* 107(1): 35-42.
- Hanson, J.M. and S.U. Qadri. 1980b. Morphology and diet of young-of-the-year Burbot, *Lota lota*, in the Ottawa River. *Canadian Field-Naturalist* 94(3): 311-314.
- Hanson, J.M. and S.U. Qadri. 1984. Feeding ecology of age 0 pumpkinseed (*Lepomis gibbosus*) and black crappie (*Pomoxis nigromaculatus*) in the Ottawa River. *Canadian Journal of Zoology* 62: 613-621.
- Lanteigne, J. 1981. The taxonomy and distribution of the North American lamprey genus *Ichthyomyzon*. M.Sc. Thesis, University of Ottawa. xi + 150 pp.
- Lanteigne, J., J.M. Hanson and S.U. Qadri. 1981. Occurrence and growth patterns of the American Brook Lamprey, *Lethenteron lamottenii*, in the Ottawa River. *Canadian Field-Naturalist* 95(3): 261-265.
- Lanteigne, J. and D.E. McAllister. 1983. The pygmy smelt,

Osmerus spectrum Cope, 1870, a forgotten sibling species of eastern North American fish. *Syllogeus* 45: 1-32.

- Lee, D.S., C.R. Gilbert, C.H. Hocutt, R.E. Jenkins, D.E. McAllister and J.R. Stauffer. 1980. Atlas of North American fresh-water fishes. North Carolina State Museum of Natural History, Raleigh. x + 854 pp.
- McAllister, D.E. and B.W. Coad. 1974. Fishes of Canada's National Capital Region / Poissons de la région de la capitale du Canada. Fisheries Research Board of Canada Miscellaneous Special Publication 24: 1-200.
- McAllister, D.E., B.J. Parker and P.M. McKee. 1985. Rare, endangered and extinct fishes in Canada. *Syllogeus* 54: 1-192.
- Mongeau, J.-R., A. Courtemanche, G. Massé et B. Vincent. 1976. Cartes de répartition géographique des espèces de poissons au sud du Québec, d'après les inventaires ichthyologiques effectués de 1963 à 1972. Faune du Québec Rapport Spécial 4: xvii + 92 pp.
- Nicol, I. 1981. Brook Stickleback. A fish that builds a nest. *Trail & Landscape* 15(4): 216-217.
- Norstrom, R.J., A.E. McKinnon and A.S.W. DeFreitas. 1976. A bioenergetics-based model for pollutant accumulation by fish. Simulation of PCB and methylmercury residue levels in Ottawa River yellow perch (*Perca flavescens*). *Journal of the Fisheries Research Board of Canada* 33(2): 248-267.
- Osterberg, D.M. 1978. Food consumption, feeding habits, and growth of walleye (*Stizostedion vitreum*) and sauger (*Stizostedion canadense*) in the Ottawa River near Ottawa-Hull, Canada. Ph.D. Thesis, University of Ottawa. xiii + 136 pp.
- Ottawa River Project. 1977. Distribution and transport of pollutants in flowing water ecosystems. University of Ottawa - National Research Council of Canada, Final Report, 2 volumes.
- Pariseau, R., P. Dumont et J.-G. Migneault. 1983. Découverte, dans le sud-ouest du Québec, d'une population de cisco de lac, *Coregonus artedii*, frayant au printemps. *Canadian Journal of Zoology* 61: 2365-2368.
- Pflieger, W. 1971. A distributional study of Missouri fishes. University of Kansas Publications, Museum of Natural History 20(3): 225-570.
- Robins, C.R., R.M. Bailey, C.E. Bond, J.R. Brooker, E.A. Lachner, R.N. Lea and W.B. Scott. 1980. A list of common and scientific names of fishes from the United States and Canada (fourth edition). American Fisheries Society Special

- Rodgers, D.W. 1976. Food habits, growth, energy transformation and pollutant accumulation of yearling yellow perch (*Perca flavescens*, Mitchill) in the Ottawa River. M.Sc. Thesis, University of Ottawa. x + 105 pp.
- Rodgers, D.W. and S.U. Qadri. 1982. Growth and mercury accumulation in yearling yellow perch, *Perca flavescens*, in the Ottawa River, Ontario. Environmental Biology of Fishes 7(4): 377-383.
- Rubec, P.J. 1975a. Fish distribution in Gatineau Park, Quebec, in relation to postglacial dispersal, man's influence, and eutrophication. Canadian Field-Naturalist 89(4): 389-399.
- Rubec, P.J. 1975b. Age, growth, distribution, reproductive behaviour, food habits and mercury concentrations of the brown bullhead, *Ictalurus nebulosus* (Le Sueur), in sections of the Ottawa River near Ottawa and Hawkesbury, Canada. M.Sc. Thesis, University of Ottawa. xii + 164 pp.
- Rubec, P.J. and B.W. Coad. 1974. First record of the Margined Madtom (*Noturus insignis*) from Canada. Journal of the Fisheries Research Board of Canada 31(8): 1430-1431.
- Rubec, P.J. and S.U. Qadri. 1982. Comparative age, growth, and condition of Brown Bullhead, *Ictalurus nebulosus*, in sections of the Ottawa River, Canada. Canadian Field-Naturalist 96(1): 6-18.
- Scott, W.B. and E.J. Crossman. 1973. Freshwater fishes of Canada. Bulletin of the Fisheries Research Board of Canada 184: xi + 966 pp.
- Smith, N.W. 1974. Age, growth, food, fecundity, maturation and local distribution of channel catfish (*Ictalurus punctatus*) in the Ottawa River near Ottawa and Hull, Canada. M.Sc. Thesis, University of Ottawa. viii + 96 pp.
- Talajic, F. 1980. Age, growth, food, sexual dimorphism, maturity, fecundity, and proximate analysis of mooneye (*Hiodon tergisus*, Le Sueur) in two areas of the Ottawa River. M.Sc. Thesis, University of Ottawa. xiii + 107 pp.
- Vladykov, V.D. and E. Kott. 1982. Correct scientific names for the least brook lamprey and the American brook lamprey (Petromyzontidae). Canadian Journal of Zoology 60(5): 856-864.
- Williams, G.C., R.K. Koehn and V. Thorsteinsson. 1984. Icelandic eels: evidence for a single species of *Anguilla* in the North Atlantic. Copeia 1984(1): 221-223. □

Coming Events

arranged by the Excursions and Lectures Committee
Ross Anderson (224-7768), Chairman

Times stated for excursions are departure times. Please arrive earlier; leaders start promptly. If you need a ride, don't hesitate to ask the leader. Restricted trips will be open to non-members only after the indicated deadlines.

Tuesday	ANNUAL BUSINESS MEETING
13 Jan.	Meet: Auditorium, National Museum of Natural Sciences, Metcalfe and McLeod Streets
8:00 p.m.	The formal business meeting will be followed by an opportunity to ask and learn about the inner workings of the Club in a more relaxed atmosphere. Four discussion groups have been created from various committees of the Council. <ol style="list-style-type: none">1. Awards, Education and Publicity, Macoun;2. Birds, Excursions and Lectures;3. Conservation;4. Finance, Membership, Publications. The committee representatives look forward to your questions and comments over coffee and dessert.

Saturday WINTER BIRDING IN THE OTTAWA AREA
17 Jan. Leader: Roy John
8:00 a.m. Meet: Neatby Building, Central Experimental Farm, one block west of the Irving Place - Maple Drive stoplight on Carling Avenue. Use the parking lot west of the Neatby Building and south of the greenhouses.
This half-day outing will visit several local areas traditionally productive for birding at this time of year. A stop at one of the Club feeders may be included. Dress warmly and bring a snack and binoculars. Transportation will be by private car.

Saturday WINTER BIRDING IN THE LOW-POLTIMORE AREA
24 Jan. Leader: Bruce Di Labio (729-6267)
7:00 a.m. Meet: front entrance, Brooke Claxton Building
(Health and Welfare Canada), de la Colombine
Boulevard at Tunney's Pasture

An all-day outing to seek out some of the interesting birds typical of our northern forests. Boreal Chickadees, Common Ravens and several species of winter finches (including the crossbills) can be expected. Bring binoculars, a lunch and a hot drink. Be sure to dress warmly. Transportation will be by private car.

Tuesday OFNC MONTHLY MEETING
10 Feb. VIEW FROM THE TOP: ELLESMERE ISLAND
8:00 p.m. Speaker: Stephen Bridgett

Meet: Auditorium, National Museum of Natural Sciences, Metcalfe and McLeod Streets

As a member of the Mapping and Charting Establishment of the Canadian Armed Forces, Stephen made two separate trips (during the summers of 1985 and 1986) to conduct topographical surveys of one of the northernmost islands of the world. Although some aspects of the flora and fauna are covered, the main emphasis of his slide presentation will be the breathtaking beauty of Ellesmere Island which is accessible only by helicopter.

Wednesday PLANT IDENTIFICATION WORKSHOP
18 Feb. Instructors: Erich Haber and Philip Martin
7:00 - Meet: Room 3, National Museum of Natural Sciences,
10:00 p.m. Metcalfe and McLeod Streets

This workshop will provide an introductory session on the identification of plants with the use of botanical keys. Topics to be covered include basic information on plant classification (especially family characteristics), basic terminology of vegetative and floral structures, types of keys, and practical experience with keys using fresh and preserved specimens from the Ottawa region. Slides will also be used to illustrate many of the plants. Those members wishing to attend should register by telephoning the Club number (722-3050) as soon as possible. The workshop will be limited to the first 20 people to register. Bring a hand lens, magnifying glass and any handbooks you like.

Saturday MADAWASKA WILDERNESS SKI TRIP FOR INTERMEDIATE-
21 Feb. ABILITY CROSS COUNTRY SKIERS
Leaders: Sheila and Harry Thomson (234-0845)
An all-day ski trip through the lovely Madawaska
Hills. Dress warmly and bring a hearty lunch to eat
around a campfire on the snow. This will be deep-
snow skiing in wild country, about 10 km. Those
members wanting less exercise are invited to explore
shorter routes in the area on their own, using the
Thomson cabin for lunch and shelter. To register for
an enjoyable day of winter wilderness exploration,
telephone the Club number (722-3050) by February
18th. This outing will take place whether the fore-
cast is for sun or cloud, snow or rain.

Sunday WINTER WEEDS
22 Feb. Leaders: Ross Anderson and Ellaine Dickson
9:00 a.m. Meet: front entrance, National Museum of Natural
 Sciences, Metcalfe and McLeod Streets
This outdoor workshop is designed to increase your
enjoyment of winter hikes. *Weeds in Winter* by Lauren
Brown will be used as a reference book. See the
articles on winter wildflowers by Ross Anderson in
the January-February 1983, 1984 and 1986 issues of
Trail & Landscape. Dress warmly and bring a lunch
for this half-day outing.

Saturday WINTER BIRD BUS TRIP TO THE KINGSTON AREA
28 Feb. Leader: Tom Hanrahan (230-5290)
7:00 a.m. Meet: Loblaw's, Carlingwood Shopping Centre,
 Carling Avenue at Woodroffe Avenue
Cost: \$15.00 per person (prepaid at least ten days
 in advance)
The outing will probably include a visit to either
Amherst Island or Wolfe Island to observe owls, hawks
and other birds of winter. Dress warmly; bring bino-
culars and a hearty lunch. The bus should return to
Ottawa by 6 p.m. Reserve a spot by sending a cheque
or money order (payable to The Ottawa Field-Natural-
ists' Club) to Ellaine Dickson, 2037 Honeywell Aven-
ue, Ottawa K2A 0P7, at least ten days in **advance**.
Include your name, address, telephone number and the
name of the outing.

POINT PEELE EXCURSION

DATES: May 7 - 10 (inclusive), 1987

LEADERS: yet to be determined

Your Club, through Travelways, is offering an excursion to Point Pelee to observe birds and whatever else might be of interest. We may also visit Rondeau Park on the way back to Ottawa.

Point Pelee National Park is a fascinating blend of marsh, beach, fields and mature Carolinian forest located at the southernmost tip of mainland Canada. Its strategic position along the migratory corridors has led to its international reputation as perhaps the best spot in North America to view the northward migration of birds. Hordes of naturalists arrive each spring to observe many of the more than 300 species of birds (including 41 species of warblers) that have been recorded in the Park. It is not uncommon to tally over 100 species in a single day during the peak of spring migration. Join your fellow Club members in this naturalists' paradise in 1987!

ACCOMMODATION will be in the new Journey's End Motel in Leamington, a mere 10 km from the Park entrance. This major breakthrough will save travel time and permit an extra hour or two of birding each day. Costs are as follows:

single occupancy	(1 double bed)	\$220. per person
double occupancy	(1 double bed)	\$180. per person
twin occupancy	(2 double beds)	\$180. per person
triple occupancy	(2 double beds)	\$160. per person
quadruple occupancy	(2 double beds)	\$150. per person

NOTE THAT THESE COSTS INCLUDE BUS FARE BUT NOT MEALS.

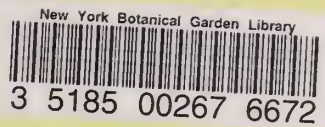
MEALS will be provided at a nearby restaurant with breakfast tentatively scheduled for 5:00 - 5:30 a.m. and dinner for 6:30 p.m. Box lunches will be provided on Friday, Saturday and Sunday. Meals will be paid for individually; they are not included in the above-quoted costs. You should bring a lunch with you on Thursday.

TENTATIVE ITINERARY

Thursday, May 7: leave Ottawa 6 a.m., arrive Leamington 4 p.m.

Friday and Saturday: breakfast between 5:00 and 5:30 a.m.
depart for Pelee at 5:45 a.m.
depart from Pelee between 5 and 6 p.m.
dinner at 6:30 p.m.; evening free.

Sunday May 10: breakfast between 6:00 and 6:30 a.m.; depart at 7:00 a.m.; three- or four-hour stopover at Rondeau Park; arrive Ottawa 8 p.m.



1. Reservations should be made as soon as possible by calling the Club number (722-3050). Payment in full must be received by March 1. For full refund, notice of cancellation must be made before March 15. Refunds will be made only in the case of very special circumstances. (Trip cancellation insurance will be available for an additional \$9.00.) Send your payment for this trip (by cheque or money order payable to The Ottawa Field-Naturalists' Club) to Elaine Dickson, 2037 Honeywell Avenue, Ottawa K2A 0P7. Do not delay in making your reservation. If the bus is not filled by Ottawa Field-Naturalists' Club members, it will be opened to the general public after March 1. If we do not get a good early response, the trip will be cancelled.
2. Expect to see more people than birds at the Park at this time of year. Pedestrian traffic is expected to be heavy.
3. Binoculars and warm clothing are essential. Rain gear should be taken, but we hope will not be needed.
4. The bus is at our disposal; it will stop or go according to our requests.
5. If you get the answering service when you call the Club number, please leave your name and phone number, and we will contact you.
6. An account of the Club's first excursion to Point Pelee in May 1983, may be found in *Trail & Landscape* 18(2): 93-95 (1984).

* * *

ATTENTION ALL MEMBERS

1987 membership fees are now due. Please renew promptly; late renewals entail extra work and add to your Club's expenses.

Members who have not renewed their membership by **February 1st** will not receive any more copies of *Trail & Landscape*. Missed copies will be available to those who renew late at a cost of \$1.00.

DEADLINE: *Material intended for the March-April issue must be in the Editor's hands before January 3 at the latest.*

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